

STUDY OF PROBLEMS RELATED TO MENSTRUATION IN ADOLESCENT GIRLS

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CERTIFICATE

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***“STUDY OF PROBLEMS RELATED TO MENSTRUATION IN
ADOLESCENT GIRLS”*** has been prepared by me.

This is submitted to the Tamilnadu Dr. M.G.R. Medical
University, Chennai in partial fulfillment of the rules and
regulations for the M.D. Degree Examination in Obstetrics and
Gynaecology. This has not been submitted previously by me for the
award of any degree or diploma from any other university.

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INTRODUCTION

Puberty is a period during which secondary sexual characters develop and the capability of sexual reproduction is attained (chamberlain et al). According to Maranon and Crecimiento puberty implies a pluriglandular crisis affecting the entire body, marks the beginning of sexual life during which secondary sexual characters develop.

In Latin *adolescere* meaning –to grow up .Adolescence is the transitional period linking childhood to adulthood and involves physical, biological and psychosexual changes in a girl.

WHO defined adolescence as progression from appearance of secondary sexual characters to sexual and reproductive maturity and development of adult mental process (Howkin's et al)

Adolescent age group defined by WHO is between 10-19 years for girls (WHO report series). A fifth of world's population is between 10-19 years.

Adolescent girl constitute a vulnerable group, particularly in developing countries like India where female child is a neglected one. Adolescents constitute over 21.4 % of the population in India. This age group needs special attention because of the turmoil of adolescence which they face due to the different stages of development that they undergo, different circumstances that they come across, their different needs and diverse problems (Patil et al).

Gynecological problems in adolescents occupy a special space in the spectrum of gynecological disorders of all ages. Various studies have focused on adolescent gynecological problems of which menstrual disorders were found to be the commonest one. (Go swami et al). Although menstrual irregularities maybe normal during the early post menarchal years, pathological conditions require proper and prompt treatment.

Hence this study was undertaken to study the various problems related to menstruation in adolescent girls.

REVIEW OF LITERATURE

PUBERTY AND PHYSIOLOGY OF MENSTRUATION

Pubertal changes in a girl occur in an orderly sequence over a definite time frame. These changes are modulated by the interaction of various hormones secreted through HPO axis as well as Thyroid and Adrenal glands.

Although the major determinant of timing of onset of puberty is genetic, other factors like nutritional status, general health, geographic location and psychological state also influences it.

Children with family history of early puberty (Tanner et al) start early. Children closer to Equator, at lower altitudes, in urban areas and mildly obese children start earlier when compared to those away from equator, at high altitudes, rural areas and non obese children respectively.

Marshall and Tanner described pubertal changes in normal girls which includes,

- 1) Accelerated growth,

- 2) Development of secondary sexual organs and Breast budding at about 9 years (Thelarche)
- 3) Appearance of pubic hair by 10.5 years (Pubarche)
- 4) Appearance of axillary hair at about 12.5 years (Adrenarche), followed by peak growth velocity
- 5) Lastly, the onset of menstruation called Menarche occurring at 12.8 years (Harlan et al).

Pubertal sequence requires a period of 4.5 years, with a range of 1.5 to 6 years. The process of puberty starts at 9 years of age and completed by the age of 16 years.(Sperroff et al)

MENARCHE

Menarche in Greek meaning - month+origin. (Jeffcoates).It is the onset of menstruation and final growth spurt occurring after the development of secondary sexual characters. There is a good correlation between the time of menarche of mothers and daughters and between sisters (Tanner et al). Moderately obese girls, 20-30% over normal weight have earlier menarche than normal weight girls. (Adair et al)

Age of menarche has been declining from the early 1800 until 1950, more recently the decline seems to have slowed or stabilized (Herman et al). Trend toward early puberty and menarche are caused by increase in overweight and obesity as regulated by BMI (Kaplowitz et al).

In India, the age of menarche varies between 12.5-14.8 years in reports from different parts of the country. Average age is 13.5 years (Malhotra et al). In contrast median age of menarche in US girls is 12.8 years (Harlan et al). As per Howkin's menstruation begins when bone age is 13-14 years. This is brought about by pulsatile secretion of GnRH from hypothalamus, resulting in activation of HPO axis with establishment of menstrual cycles as final event of pubertal development.

NORMAL MENSTRUAL PHYSIOLOGY

Menstruation is the monthly physiological shedding of endometrium. The menstrual cycle is regulated by a combination of Hypothalamus, Anterior pituitary, Ovaries and Uterus. The hypothalamus and pituitary gland regulate reproductive hormones.

Hypothalamus first releases GnRH in pulsatile fashion. It in turn, stimulates pituitary to produce FSH and LH. With the start of

each menstrual cycle, FSH stimulates follicular development of ovary. (Vermesh et al). Several follicles develop over two week period, of which only one becomes the dominant follicle. These follicles secrete oestrogen which is responsible for proliferative changes in the endometrium. Rising estrogenic levels have negative feedback on FSH but enhances LH release. Dominant follicle responds to high LH levels resulting in luteinization of granulosa cells, production of progesterone and initiation of ovulation.

In general, ovulation will occur 10-12 hours after LH surge or 34-36 hours after the initial rise in mid cycle LH (Hoff et al).

Average length of follicular phase is 14 days with range of 7-22 days (Neinstein et al). Variability of this length is responsible for most variation in total cycle length.

The luteal phase follows ovulation, and the corpus luteum secretes progesterone. This causes secretory hypertrophy of the endometrium and inhibits LH production. In the absence of fertilization, corpus luteum regresses, resulting in decline of both estrogens and progesterone levels. This leads to shedding of endometrium 14 days after ovulation.

Normal menstruation results from progesterone withdrawal from estrogens primed endometrium. Various prostaglandins are produced in the endometrium and the balance between vasoconstrictive and vasodilating effects are in controlling the quantity and duration of menstrual bleeding (Adelantado et al). ``

Studies on adolescent menses show differences in rate of ovulation based on the number of months or years post menarche. Younger the age at menarche sooner the regular ovulation is established (Lazar et al).

ANOVULATORY CYCLES

Anovulatory cycles are common in the first 2 years after menarche because of the immaturity of the HPO axis (Simmons et al). About 50% of adolescents have anovulatory cycles during first 2 years post menarche and 80% have ovulatory cycles occurring only at 5 years post menarche.

Anovulation can also occur in variety of pathological conditions. In anovulatory cycles, the follicular growth occurs with stimulation of FSH, however due to lack of LH surge, ovulation fails to occur. Consequently, no corpus luteum is formed and no

Progesterone is secreted. The endometrium continues its proliferative phase excessively.

When the follicle involutes, estrogens level drops and its withdrawal bleeding occurs.

Most anovulatory cycles are regular with normal bleeding. However, the unstable proliferative endometrium can shed irregularly, resulting in prolonged heavy bleeding.

NORMAL MENSES

The menstrual flow is called menses or catamenia. The major component of menstrual discharge is endometrial tissue

During the first two years after menarche, most cycles are anovulatory. Despite this, they are somewhat regular, in the range of 21-42 days (Hillard et al), which is established within 2 years of menarche in two thirds of girls.

The mean duration of menses is 4.7 days with the range of 2-7 days. Total blood loss during menstrual cycle is difficult to estimate. The common practice is to ask how many pads or tampons are soaked on a heavy day or per cycle will give a rough approximation of blood loss (3-5 pads per day is typical).

Average blood loss per cycle is 35 ml (Fraser et al). It may range from 20-60ml.

MENSTRUAL DISORDERS IN ADOLESCENT GIRLS

I) ABNORMAL UTERINE BLEEDING(AUB)

AUB refers to bleeding that is excessive or occurs outside the normal cyclical menstruation (APGO) or it can also be defined as any form of bleeding that is irregular in amount, duration or frequency (Elisabeth et al).

Most adolescents have ovulatory cycles by the end of 2nd year of menstruation. Cycles that are longer than 42 days or shorter than 21 days or bleeding that lasts >7 days should be considered abnormal, particularly after 2 years from onset of menarche (Berek's & Novak's). Recurrent bleeding in excess of 80 ml / cycle results in anaemia.

Greater irregularity is acceptable if neither significant anaemia nor haemorrhage is present. Evaluation is needed for girls whose cycles are consistently outside the normal range (Venturoli et al) or whose cycles were previously regular has become irregular (Hillard et al). Abnormal uterine bleeding in adolescents will be in

the form of menorrhagia, oligomenorrhea, hypomenorrhea or polymenorrhea.

CAUSES OF AUB

Anovulation is the most common cause of AUB accounting for about 95%. This is commonly due to immature HPO axis and failure of feedback mechanisms. Pathologically it occurs in eating disorders like anorexia or bulimia nervosa, chronic medical illness, ovarian insufficiency, alcohol and drug abuse, stress, thyroid dysfunction, hyperprolactinemia, and androgen excess conditions.

Haematological abnormalities must be considered if an adolescent presents with AUB. It is the second most common cause of AUB in adolescents (Phillip et al). These will be idiopathic thrombocytopenic purpura, Von Willebrand's disease, leukemia, fanconi's anaemia and aplastic anaemia.

Anatomic abnormalities like uterus didelphus or septate uterus can lead to AUB but this is uncommon.

Hepatic dysfunction will be a rare cause of AUB

In sexually active adolescents, pregnancy related bleeding, sexually transmitted diseases and pelvic inflammatory diseases to

be considered as a cause of AUB. Menorrhagia may be the initial symptom in sexually transmitted infections. Adolescents have the highest rate of PID of any age group of sexually experienced individuals (Lawsen et al).

Exogenous hormones in the form of oral or injectable contraceptives can be the cause of AUB rarely when prescribed for AUB itself or taken for contraception.

MENORRHAGIA

It refers to excessive blood loss either increase in duration of bleeding or heavier blood flow without any change in cycle length. Periods that lasts for more than 7 days or loss of >80 ml per cycle is considered as menorrhagia.

Puberty menorrhagia occurs in 5% of adolescent girls. In 75% dysfunction is due to inappropriate peripheral and central mechanisms involved in ovulatory process resulting in anovulatory cycles (Bourque et al).

Medical disorders are the next common disorders of which coagulation disorders will account for 19 % cases of menorrhagia

(Classens et al). Hypothyroidism, anticoagulant medications are the other medical causes.

5% with menorrhagia will have pelvic pathology like oestrogen secreting ovarian tumours and rarely endometriosis.

Dysfunctional uterine bleeding is defined as excessive, prolonged, unpatterned bleeding without any organic or medical cause (March et al). It is a diagnosis of exclusion and caused by slow maturation of HPO axis leading to anovulatory cycles.

Treatment of menorrhagia depends on severity. With normal haemoglobin levels reassurance is given. For anovulatory cycles watchful waiting will be appropriate. Those with reduced Haemoglobin levels should be given iron supplementation, hormonal treatment and blood transfusion if necessary. Medical and pelvic causes are managed accordingly.

OLIGOMENORRHEA

It refers to infrequent menses. In this condition the cycle length is prolonged without affecting the duration and amount of flow. In adolescents cycles >42 days after 2 years of menarche is considered oligomenorrhea (Bereks & Novaks). In early

postmenarchal years oligomenorrhea is common and not usually worrisome. But it occurs following previous regular menstrual cycles is abnormal and requires detailed evaluation.

Again the most common cause of oligomenorrhea will be the inadequate maturation of HPO axis with hormonal stimulation. These cycles are often anovulatory and will not have any adverse outcome on girl's future fertility.

Mental stress and physical stress like vigorous exercise, anorexia nervosa will cause suppression of hypothalamic function leading to oligomenorrhea. Endocrine disorders like PCOS, Thyroid dysfunction, adrenal disorders and hyperprolactinemia will cause oligomenorrhea. As tuberculosis is highly prevalent in India, genital TB has to be considered in evaluating a case of oligomenorrhea. With changing life styles, obesity is frequently encountered in adolescents and this is associated with anovulation and oligomenorrhea.

Treatment of oligomenorrhea depends on treating causational factors. If Immature HPO axis is the cause reassurance is given.

HYPOMENORRHEA

This refers to the condition in which cycle length remain unaltered, however the duration or amount of bleeding or both are substantially reduced. It is often associated with oligomenorrhea having similar etiological factors. Both oligomenorrhea and hypomenorrhea may occasionally progress to amenorrhea.

POLYMENORRHEA

This refers to shortened cycles occurring at too frequent intervals <21 days. It is cyclical and bleeding is normal in amount. It is less common in adolescents, usually caused by luteal phase dysfunction. Adolescent with such problems are treated with progesterone support in luteal phase. OCP are also given to regularize the cycle.

II) DYSMENORRHOEA

Dysmenorrhoea is defined as painful menstruation. It is derived from Greek word meaning –difficult monthly flow. At the start of menarche, the cycles are painless as they are anovulatory.

Primary dysmenorrhoea refers to menstrual pain without pelvic pathology, usually appears with in 1-2 years of menarche

when ovulatory cycles are established (Dawood et al). Incidence is about 60-70 % in adolescent girls and 10 % will have severe dysmenorrhoeal symptoms (Fedele et al).

Adersch & Milson in 1982 reported dysmenorrhoea in 72% of 19 year old girls from urban Swedish population.

In Widholm and Kanter's study the frequency of dysmenorrhoea in Finnish adolescents aged 13-20 years ranged from 36-56 % with significant absence from school.

PATHO PHYSIOLOGY

Increased uterine activity was proposed as a cause of dysmenorrhoea in 1932. This was strengthened by studies on simultaneous mechanical and electrical changes (Jacobson et al). Woodbury & Tropin in 1947 established a direct correlation between presence, pattern of contraction, resting tone of uterus and pain.

By 1963, powerful smooth muscle stimulants are identified as prostaglandins with elevated levels of PG F 2 alpha reported in menstrual fluid of dysmenorrhoeic women. The connection between increased uterine activity and the pain of dysmenorrhoea is well

established (Lundstrom et al). PG F2 alpha is synthesized from arachidonic acid of cell membrane which is a mediator of pain sensation and also a strong stimulator of smooth muscle contraction. In normal menstrual cycles the level of PG F2 alpha is higher during the menstrual phase as compared to other phases (Downie et al) (William et al). Also the mean production of PG F2 alpha in dysmenorrhoeic females by secretory endometrium is 7 times higher than pain free women (Ylikorkala & Dawood et al).

There is increased level of vasopressin is also reported to be responsible for dysmenorrhoea through vasoconstriction and reduced uterine artery flow (Akerlund et al). Also elevated levels of leucotrienes have been found in endometrium of dysmenorrhoeic women by Rees et al in 1987. Recently it has been suggested that the interaction of vasopressin, PGs and LTs produces pain in dysmenorrhoea.

CLINICAL FEATURE

Pain of primary dysmenorrhoea usually spasmodic in nature begins a few hours before or just after the onset of menstruation and may last for 48-72 hours. Pain appears as suprapubic cramping, may be accompanied by lumbosacral backache, may radiate to

anterior thigh and sometimes associated with nausea, vomiting, diarrhoea rarely syncopal attack.

Pelvic organs are normal in primary dysmenorrhoea. When pain is mild reassurance is given. Severe pains need medical management. This usually responds to medical therapy. When pain does not subside with medical treatment secondary causes should be considered which is congestive in nature. Secondary dysmenorrhoea in adolescent is rare. The causes will be congenital malformation of uterus, PID in sexually active adolescents and endometriosis. Treatment of secondary dysmenorrhoea is directed towards the cause.

III) PREMENSTRUAL SYNDROME

It represents a group of interrelated symptom complexes with different patho physiological mechanisms. It consists of numerous physical and emotional symptoms that occur cyclically in the luteal phase and improve after onset of menses.

In a survey by Fisher et al in 1989, of 207 adolescents, 89% reported at least one premenstrual symptom while 43% reported at least one symptom considered extreme(Fisher et al).

ETIOLOGY

The exact cause of PMS is not known. May be related to various biochemical abnormalities as below (Smith & Schiff et al).

1. Progesterone deficiency and oestrogen excess in luteal phase
2. increased carbohydrate intolerance in the luteal phase
3. pyridoxine deficiency leading to deficient serotonin synthesis,
4. increased production of prolactin , prostaglandins,
5. increased production of vasopressin, aldosterone leading to fluid retention ,
6. progesterone metabolites modulating neural GABA receptors,
7. fluctuation in opiate peptide levels i.e. endorphins,
8. And thyroid abnormality.

CLINICAL SYMPTOMS:

The symptoms of PMS seem to be due to complex interaction of ovarian hormones, central neurotransmitters and the autonomic nervous system. Symptoms include the following,

1. Body pain- headaches, cramps , fatigue
2. water retention- weight gain, painful breasts
3. Negative effects-depression, crying , loneliness, irritability
4. Autonomic reaction – sweats, dizziness, fainting,
5. Behavioural changes – decreased efficiency, difficulty in concentrating, lowered motor coordination,
6. Somatisation-feeling of suffocation, tinnitus, blurred vision, numbness, tingling.

Management of PMS is reassurance with life style modification. May need medical treatment with Nonsteroidal anti inflammatory drugs and hormones if symptoms are severe.

IV) AMENORRHEA

Absence of menstruation is said to be amenorrhea. It may primary or secondary

Primary amenorrhea is defined as absence of menses by 16 years of age in the presence of normal secondary sexual characters or by 14 years of age when there is no visible secondary sexual characteristics development (Schlrzer et al).

Secondary amenorrhea refers to absence of menses for 6 months following previous normal menstrual cycles. Oligomenorrhea and hypomenorrhea may eventually lead to amenorrhea. Hypothalamic amenorrhea is the most prevalent cause of secondary amenorrhea in the adolescent age group followed by PCOS. In anorexia nervosa, vigorous exercises, and chronic illnesses, an energy deficit results in suppression of GnRH secretion from hypothalamus leading to amenorrhea (Golden et al).

VARIOUS STUDIES ON ADOLESCENT MENSTRUAL PROBLEMS

Goswami sebatini et al from Kolkata in 2005 studied on adolescent gynaecological problems and reported menstrual disorders are the commonest gynaecological problem of about 58.06 % in adolescent girls.

According to study by Audinarayanan et al, menstrual problems are said to be the major problems among adolescent girls and stated understanding of magnitude of problems and consequences are challenges to reproductive health care approach in India.

In 2005, study by Gilany et al found primary dysmenorrhoea is more common in about 74.6 % adolescents where as secondary dysmenorrhoea is rare. Also dysmenorrhoea as the commonest gynecological problems in female adolescents.

Tehera et al from Bangladesh in 2008, on their study stated 85% of adolescent had some sort of complaints before or after menstruation and dysmenorrhoea in 60% of girls.

Jones et al reported on their study on AUB in adolescents, that 75 % had anovulatory bleeding thus indicating a relatively high association of anovulation with DUB in adolescent patient.

Pragya sharma et al from New Delhi in 2008, studied on menstrual problems in adolescent girls found dysmenorrhoea as commonest problem in about 67.2 % , PMS are reported in 63.1% and 17 % were absent from school for these symptoms.

Cakir Murat et al from Turkey in 2007, studied on menstrual pattern and disorder. in adolescents found mean age of menarche is 12.8 +/- 1.3 years with range of 9-17 years. Prevalence of menstrual irregularity, prolonged menstrual bleeding and dysmenorrhoea were 31.2%, 5.3 %, 89.5% respectively. 10.5% had severe dysmenorrhoeic symptoms leading to school absenteeism. And their mothers were the first source of knowledge about menarche and menstruation.

Study by Joy Roychowdhury et al in 2006 on puberty menorrhagia stated 61.6% had anovulatory DUB, 15.4 % had haematological causes. Hypothyroidism, endometrial TB, PCOS were other important causes and concluded in their study as anovulatory DUB is the most common cause of puberty menorrhagia.

Anupriya et al from Singapore in 2009, in their cross sectional study on menstrual disorders in adolescent girls reported irregular cycles in about 23.1 % of adolescents. Oligomenorrhea was the most frequently reported problem (15.3%), and polymenorrhea was much less prevalent (2.0%). With increasing body mass index (BMI), there was a significant increase in the

prevalence of oligomenorrhea, whereas polymenorrhea was more prevalent in the girls with a low BMI. Dysmenorrhoea was a significant problem, with 83.2% respondents reporting it in various degrees and 24% girls reporting school absenteeism owing to it. Dysmenorrhoea was severe enough to require analgesics for pain relief in 45.1% of all subjects. In spite of menstrual problems being common, only 5.9% girls reported seeking medical advice for them. They concluded in their study as menstrual problems among adolescent females are common and a significant source of morbidity in this population. However, adolescent girls are reluctant to seek medical treatment, leading to delay in diagnosis and treatment. Appropriate health education measures need to be put into place to prevent this trend

Barbara et al in 1997, in their study found PMS as the most frequent reported disorder in 84.3 %, followed by dysmenorrhoeal in 65%. Abnormal cycle length was reported in 13.2 %, excessive uterine bleeding in 8.6% and only 2% received information about menstruation from their health care providers.

Venturoli et al in 1986 reported high percentage of adolescents with irregular menses had multicystic ovaries in about 57.9% when compared with those having normal cycles.

Tomoko Fujiwara et al in 2007 found in their study the students with irregular menses have relatively high BMI score and students with irregular menses reported a higher intensity of dysmenorrhoea

Lee & Chen et al in 2006 from Malaysia in their study on menstruation among adolescent girls found that the majority (74.6 percent) experienced premenstrual syndrome and 69.4 percent had dysmenorrhoea. About 18 percent reported excessive menstrual loss. Only 11.1 percent of schoolgirl's sought medical consultation for their menstrual disorders. Mothers remained the most important source of information (80 %).

Dasgupta et al from Kolkata in 2007 found in their study that the mean age of menarche was 12.8 years. In his study 67.5% of girls were aware about menstruation prior to attainment of menarche. Mothers were the first informant regarding this and only 11.25% used sanitary pads as menstrual absorbent.

Patil et al from Maharashtra in 2009 in their on health problems amongst adolescent girls found that the mean age of menarche as 13.7 years, commonest problem faced was dysmenorrhoea in 44.2% and irregular cycles was present in 16.9% of adolescent girls.

AIM OF STUDY

1. To study the types and frequency of various problems related to menstruation in adolescent girls.
2. To suggest recommendations based on study findings.

MATERIALS AND METHODS

This Descriptive Cross sectional study was done in the setting of Institute of Obstetrics and Gynaecology, Egmore, Chennai during the year 2008-2009.

The study was conducted in adolescent girls at Mary Clubwala Jadhav Higher secondary school in Chennai. Girls in the age group of 10-19 years who attained menarche at least 2 years back were included in the study. 406 girls were included in this study. The data was collected after taking permission from school authority. Age of girls was ascertained from school records and rounded to nearest completed year. Students are randomly selected based on inclusion and exclusion criteria.

INCLUSION CRETERIA

Adolescent girls in the age group of 10-19 years, who attained menarche at least 2 years before at the time of study.

EXCLUSION CRITERIA

- 1) Girls < 10 years and >19 years.
- 2) Girls in the age group 10-19 years, who had menarche with in 2 years

Data were collected through face to face interview and examination. Detailed history regarding menarchal age, menstrual cycles and related problem, awareness about menarche and menstruation, menstrual hygiene, previous medical and surgical history, age of menarche for mother and sisters, effect on daily routines were taken.

Through physical examination for pallor, hirsutism, secondary sexual characters, thyroid done. Height and weight recorded for calculating BMI. Height was taken in standing position without footwear and heels placed together with medial malleoli touching and is measured in cm. Weight was recorded in Kg by a standard weighing machine. The BMI was calculated using QUETLET'S INDEX as follows

QUETLET'S INDEX: $\text{Weight in kg} / \text{height in sq.metre}$

According to Centers for Disease Control, BMI for children is calculated same way as for adults but compared to typical values for other children of the same age. Then the BMI percentile allows comparison with children of same age and sex.

BMI PERCENTILE	CATEGORY
<5 th percentile	Underweight
5 to 85 th percentile	Normal
85 to 95 th percentile	Overweight
>95 th percentile	Obese

Systemic examination done for CVS, RS, CNS and abdomen. Investigations such as haemogram, TSH, Prolactin were done at Endocrinology department Lab. USG pelvis was done by expert sonologist in indicated cases.

Finally the data were edited, processed and analyzed,

RESULTS AND ANALYSIS

This study was conducted in school going adolescent girls in the age group of 13 to 18. Total numbers of students involved in the study were 405. Maximum number was in the age group 14-16 years. The mean age of the study group was 15.18 years.

Table 1: Age Distribution

<i>AGE IN YEARS</i>	<i>NUMBER OF STUDENTS</i>	<i>PERCENTAGE (%)</i>
13	28	6.9
14	94	23.2
15	120	29.6
16	110	27.2
17	46	11.4
18	7	1.7
Total	405	100

SOCIO ECONOMIC STATUS- DISTRIBUTION

This study covered students from socioeconomic status class II to V with maximum number in class IV which covered 63% of girls, 33.6% in class III, 2% in class II and 1.5% in class V.

Table 2: Frequency of Socio Economic Status

<i>SOCIO ECONOMIC STATUS</i>	<i>NUMBER</i>	<i>PERCENTAGE (%)</i>
II	8	2
III	136	33.6
IV	255	63.0
V	6	1.5
TOTAL	405	100

BMI DISTRIBUTION

Among the girls studied 92.1 % had normal BMI between 5-85th percentile, 1.7% were underweight with BMI <5th percentile, 5.9 were overweight with BMI between 85-95th percentile and 0.2 % were obese with BMI >95th percentile.

Table 3: BMI Distribution

<i>BMI Percentile</i>	<i>Number</i>	<i>Percentage (%)</i>
< 5	7	1.7
5 to 85	373	92.1
85 to 95	24	5.9
>95	1	0.2
TOTAL	405	100

AGE OF MENARCHE

The age of menarche in the study group ranged from 10 – 15 years, maximum between 12 – 13 years and mean of 12.53 years. When socioeconomic status and menarchal age were compared, it showed inverse relationship. Girls from high socioeconomic status had attained menarche at an earlier age when compared to those from low socioeconomic status. Also the age of menarche of the study group when compared with that of their mothers and sisters showed significant correlation at 0.05 and 0.01 level respectively.

Table 4: Distribution of Age of Menarche

<i>AGE OF MENARCHE</i>	<i>NUMBER</i>	<i>PERCENTAGE (%)</i>
10	6	1.48
11	49	12.09
12	149	36.79
13	128	31.60
14	65	16.60
15	8	1.97
TOTAL	405	100

AGE OF MENARCHE AND SOCIOECONOMIC STATUS

When socioeconomic status and menarchal age were compared, it showed inverse relationship. Girls from high socioeconomic status had attained menarche at an earlier age when compared to those from low socioeconomic status. Also the age of menarche of the study group when compared with that of their mothers and sisters showed significant correlation at 0.05 and 0.01 level respectively.

Table 5: Correlation between Socio Economic Status and Age of Menarche

<i>SOCIO ECONOMIC STATUS</i>	<i>MEAN AGE OF MENARCHE</i>
CLASS II	12.25
CLASS III	12.42
CLASS IV	12.58
CLASS V	13.00
TOTAL	12.53

BMI AND AGE OF MENARCHE

Girls with normal BMI had menarchal age 12.5years which is close to mean. Underweight girls with BMI percentile <5 had 13 years as mean age of menarche. Those with BMI between 85-95th percentile and with BMI >95percentile had their mean age of menarche as 11.8 and 11 Years respectively. Those with increased BMI had early menarche and decreased BMI had late menarche.

Table 6: Correlation between BMI and age of Menarche

<i>BMI PERCENTILE</i>	<i>MEAN AGE OF MENARCHE</i>
<5	13.00
5 TO 85	12.56
85 TO 95	11.87
> 95	11.00
Average	12.53

MENSTRUAL PROBLEMS

64.45% of 405 girls had problems related to menstruation like dysmenorrhoea, menstrual irregularities in the form of oligomenorrhea, polymenorrhea, menorrhagia and premenstrual symptoms. While 35.55% were without any problems.

Table 7: Frequency of Menstrual Problems

<i>MENSTRUAL PROBLEMS</i>	<i>PERCENTAGE (%)</i>
PRESENT	64.45 %
ABSENT	35.55 %
TOTAL	100%

MENSTRUAL IRREGULARITIES

Among 405 students studied 91.4% had regular cycles and 8.6% had irregular cycles after 2 years of menarche. Among those with irregular cycles 8.1% had oligomenorrhea and 0.5% had polymenorrhea.

Table 8: Frequency of Menstrual Pattern

<i>MENSTRUAL PATTERN</i>	<i>FREQUENCY</i>	<i>PERCENTAGE (%)</i>
REGULAR	370	91.4
IRREGULAR	35	8.6
TOTAL	405	100

In the menstrual irregularities oligomenorrhea was present in 8.1%, polymenorrhea in 0.5% and menorrhagia in 0.7% on investigation, students with menorrhagia had normal Haemoglobin levels.

Table 9: Abnormal uterine Bleeding

<i>ABNORMAL UTERINE BLEEDING</i>	<i>FREQUENCY</i>	<i>PERCENTAGE (%)</i>
Oligomenorrhea	33	8.1
Polymenorrhea	2	0.5
Menorrhagia	3	0.7

Those with oligomenorrhea were subjected to TSH, Prolactin and USG pelvis 3(8.57%) had polycystic ovaries and 1(2.85%) had hypothyroidism.

Table 10: Problems Identified among the Oligomenorrheic Girls

<i>PROBLEMS IDENTIFIED</i>	<i>FREQUENCY</i>	<i>PERCENTAGE (%)</i>
PCOS	3	8.57
Hypothyroid	1	2.85

MENSTRUAL IRREGULARITY AND BMI

Menstrual irregularity was associated with high BMI when compared to those with regular cycles. Girls with irregular cycles had BMI Percentile of 21.25 and those with regular cycles had BMI Percentile of 19.93. Only 1% of 8.6% girls with irregular periods opted for medical treatment. Menorrhagia was present in 0.5% and they clinically not pale, also blood investigation showed normal haemoglobin.

Table 11: Relation between MENSTRUAL PATTERN and BMI

<i>MENSTRUAL PATTERN</i>	<i>MEAN BMI</i>
REGULAR	19.93
IRREGULAR	21.25

DYSMENORRHOEA

Dysmenorrhoea was present in 53.1% of girls which made 11.6% of them to be absent from school. 10.7% were self medicated with over the counter medication for dysmenorrhoea while 42.4% did not required any treatment. This was associated with vomiting in 6.7% and headache in 10.6%. When dysmenorrhoea was compared with menstrual pattern, 51.1% with regular menses and only 2% with irregular menses had dysmenorrhoea indicating onset of ovulatory cycles after 2 years of menarche.

Premenstrual symptoms were reported in 7.9% in the form of breast tenderness, abdominal bloating, headache, sleeplessness and emotional liability. None of the girls needed medication for this.

Table 12: Frequency of Dysmenorrhoea

<i>Dysmenorrhoea</i>	<i>Percentage</i>
Present	53.1%
Absent	46.9%
TOTAL	100%

AWARENESS ON MENSTRUATION

Only 126 girls (31.1%) among 405 in the study group had awareness about menstruation before menarche. While others about 279 girls (68.9%) came to know about menstruation after attaining menarche only.

Table 13: Awareness on Menstruation

<i>AWARENESS ON MENSTRUATION</i>	<i>FREQUENCY</i>	<i>PERCENTAGE (%)</i>
AWARE	126	31.1
NOT AWARE	279	68.9
TOTAL	405	100

The source of awareness was mothers in 75.1% ,sisters in 7.2%, relatives in 13.8% and friends in 4%.Also 58% of girls were able to tell about their mothers age of menarche while 42% does not aware of it.

Table 14: Source of Awareness

<i>SOURCE OF AWARENESS</i>	<i>PERCENTAGE (%)</i>
Mothers	75.1
Sisters	7.2
Relatives	13.8
Friends	4

When 146 students of XI and XII standard were asked about awareness on pregnancy and contraception, Only 30 students had knowledge about it while others were not aware or reluctant to answer. Their source of knowledge regarding pregnancy and contraception was mainly the Medias.

Table 15: Awareness on Pregnancy & Contraception

<i>AWARENESS ON PREGNANCY & CONTRACEPTION</i>	<i>PERCENTAGE (%)</i>
Aware	21
Not Aware	79

Though 96.8% girls in the study group used sanitary napkins during menses, 16% of them did not practice menstrual hygiene. About 25.7% does not empty their bladder at schools.

Among 405 students, 5 (1.23 %) gave history of taken treatment for TB, 2 students (0.49%) are taking hypothyroid treatment. Clinical examination revealed normal findings in all except for 3% girls had goitre which is physiological and confirmed by serum TSH levels. There are no menstrual irregularities in girls treated for TB or thyroid disorder. Acne was present in 12.8% of girls which is cosmetic significance. Among the 3 students with polycystic ovaries on USG and irregular menstrual cycles 2 had acne.

DISCUSSION

This study included 405 adolescent school girls from Mary Clubwala Jadhav Higher Secondary School, Chennai.

The age of menarche did not vary from that of other studies. The age of menarche ranged from 10- 15 years, maximum between 12 -13, with mean of 12.53 years. This is similar to study by Cakir Murat et al from Turkey (2006) which showed mean age of menarche is 12.8 +/- 1.3 years with range of 9-17 years.

Study conducted by Lee & Chen et al from Malaysia (2006) showed age of menarche ranged from 9-17 years with mean of 12.3+/- 1 year. Patil et al from Maharashtra (2009) found the mean age of menarche as 13.7 years in their study.

STUDIES	AGE OF MENARCHE in years
Cakir Murat et al,Turkey(2006)	12.8
Lee&Chen et al,Malaysia(2006)	12.3
Dasgupta et al ,Kolkata(2007)	12.8
Patil et al ,Maharastra(2009)	13.7
Present study	12.53

Our study showed menstrual problems were present in 64.45 % of adolescent girls. Study conducted by Go swami et al from Kolkata (2005) showed menstrual disorders are the commonest gynaecological problems present in 58.06 % of adolescent girls. Tehara et al from Bangladesh (2008) found menstruation related problems were present in 85% of adolescent girls.

Menstrual irregularity was present in 8.6% of girls even after 2 years of menarche in our study group with 8.1 % having oligomenorrhea and 0.5% having polymenorrhea. Where study conducted by Anupriya et al from Singapore (2009) showed irregular cycles in 23.1% with oligomenorrhea in 15.3% and polymenorrhea in 2%.

Only 1% of girls among 8.6 % with irregular menses had opted for treatment. Anupriya et al found only 5.9% of girls with menstrual disorders were seeking treatment for it.

Our study showed menstrual irregularity was common with increasing BMI than with low BMI. This is comparable to study

by Anupriya et al which showed oligomenorrhea was associated with increasing BMI and polymenorrhea was more prevalent in girls with low BMI.

Menorrhagia was found in 0.5 % in this study group but Cakir et al has showed 5.3% with prolonged cycles. Student with menorrhagia were clinically not pale and their Haemoglobin was in normal range. Whereas study conducted by Lee & Chen et al showed prevalence of anaemia in 0.4 % of students with heavy menstrual blood loss.

In our study 53.1 % of girls had dysmenorrhoea and is the most common menstrual disorder which is similar to various studies as showed below. The dysmenorrhoea was spasmodic in nature in all indicating primary type of dysmenorrhoea.

<i>STUDIES - Dysmenorrhoea</i>	<i>Percentage</i>
Anupriya et al (2009)	83.2
Gilany et al (2005)	74.6
Cakir et al (2007)	89.5
Pragya Sharma et al (2008)	67.3
Tehara et al (2008)	60

Dysmenorrhoea was severe enough and made 11.6% of students to be absent from school with mean duration of absence as 1.5 day in this study. Whereas study conducted by Pragya Sharma et al from New Delhi (2008) and Cakir et al showed 17% and 10.5% of school absenteeism respectively.

In the study by Lee & Chen et al the mean days of school absence was 3.15 days. Treatment for dysmenorrhoea with analgesics was taken by 10.7% of girls in our study. Whereas Lee & Chen et al found 29.4 % had treatment for dysmenorrhoea with over the counter drugs in his study.

Anupriya et al have showed 24 % of dysmenorrheic girls were absent from school and analgesics for pain relief was required in 45.1% of girls. Girls with severe dysmenorrhoea were advised for USG examination of pelvis if the symptoms persist to rule out secondary causes of dysmenorrhoea.

Among 53.1% with dysmenorrhoea only 2% had irregular cycles whereas Tomoko Fugiwara et al showed dysmenorrhoea was more frequent with irregular cycles .

Pre menstrual symptoms were present in only 7.9% of girls in this study which is not consistent with study by Pragya Sharma et al which showed 63.1%. Barbara et al (1997) found PMS is the most frequent menstrual disorder reported in 84.3%. premenstrual symptoms does required any treatment in the present study whereas Study conducted by Lee & Chen showed premenstrual symptoms were present in 74.6% of adolescent girls of which 1.6% needed medication.

In this study the prevalence of overweight and obese girls were 5.9% and 0.2 % respectively. Whereas study by CDC National Health Statistics of US (2006) on prevalence of overweight girls has showed 14% of white teens, 24% of black teens and 17% of Hispanic teens are overweight. Overall, Asian/ Pacific Islander and Black populations were more likely to be overweight or at risk than white population.

Our study showed only 31.1% of students had awareness on menstruation before menarche while study by DasGupta et al from Kolkata (2007) showed 67.5% of girls having awareness regarding menstruation before attaining menarche. 96.8% of girls used sanitary napkins during menses in our study.

DasGupta et al showed only 11.25 % using sanitary napkins. Source of information regarding menstruation was given by mothers in 75.1% of girls in this study which similar to study by Cakir Murat et al and Lee & Chen et al. Mass media was the source of awareness on menstruation in about 30% of girls in the study conducted by Lee & Chen et al .Whereas Media had no role as a source of menstrual awareness in this study.

Among the 35 girls with irregular menstrual cycles in the study group, 3(8.57%) had poly cystic ovaries on USG, while Venturoli et al (1986) has reported high percentage of adolescent with irregular menses had multicyst ovaries in about 57.9% when compared to those with normal menses. 2 girls had normal BMI percentile and 1 obese with >95 BMI percentile among the 3 girls with polycystic ovaries.

For girls with Poly cystic ovaries counselling and advice was given regarding weight reduction, importance of seeking treatment to regularize cycle. They were explained about the need for careful follow up to prevent metabolic syndrome in future. Also explained about the effect of unopposed oestrogen on uterus and future fertility.

In our study Acne was present in 12.8% of girls which is of cosmetic importance for them. Among the 3 girls with polycystic ovaries on USG and irregular menstrual cycles 2 had acne and one was obese which is significant in view of PCOS.

Features of goitre were present in 3% of girls in our study. Their TSH was in normal range on investigation.

SUMMARY

1. This study on menstrual problems in adolescent girls was conducted on 405 school girls in the age group between 13-18 years.
2. The mean age of menarche is 12.53 years .Age of menarche is inversely related to socioeconomic status and BMI.
3. 92.1% of girls had normal BMI. While 1.7% was underweight, 5.9% were overweight and 0.2% was obese.
4. 64.45% of adolescent girls had menstrual related problems.
5. Dysmenorrhoea is the most common complaint in about 53.1% which made 11.6% to be absent from school.
6. Premenstrual symptoms were present in 7.9% only which is not severe enough to require treatment.
7. Menstrual irregularity was present in 8.6 % after 2 years of menarche. Menorrhagia was present in 0.7 % of girls. Students with Irregular menstruation had increased BMI when compared to those with regular menses. Those with polymenorrhea and menorrhagia had normal Hb and USG

pelvis on investigation. They were reassured to wait for normal maturation of HPO axis.

8. Among the 35 students with oligomenorrhea persisting after 2 years of menarche, 3(8.57%) had polycystic ovaries and 1(2.85%) had hypothyroidism. 2 of the 3 girls with polycystic ovaries on USG had associated acne and were overweight.
9. 25.7% of girls do not empty their bladder regularly during school hours. Poor menstrual hygiene was found in 16% of girls which is significant and may lead to infections, secondary dysmenorrhoea, also can affect future fertility.
10. 31.1% of girls had awareness about menstruation before menarche and only 21% were able to explain regarding pregnancy and contraception.

CONCLUSION

To emphasize, menstrual irregularities are normal for 1-2 years following menarche. If menstrual irregularities persist, should be investigated for PCOS. Dysmenorrhoea of long duration needs evaluation to rule out secondary causes. These menstrual related problems will have reproductive morbidities and can affect future fertility. There is a need to educate adolescent girls about menstruation related problems and hygiene, pregnancy and also contraception to improve sexual and reproductive health. Thus screening adolescent girls for menstruation related problems will provide them with relevant information, counselling services and treatment options. Besides, there is a need to emphasize on designing menstrual health programmes for adolescents.

RECOMMENDATIONS

1. More studies with more number of subjects are needed to find out exact burden of menstrual problems in adolescent girls at community level.
2. Regular screening and counseling regarding menstrual problems in adolescent girls should be done by Health care professionals.
3. School Teachers, Voluntary Health Workers, Media can be included to promote awareness about problems related to menstruation in adolescent girls.

ABBREVIATIONS

AUB	- Abnormal uterine bleeding
BMI	- Body Mass Index
CDC	- Centers for Disease Control
CNS	- Central nervous system
CVS	- Cardiovascular system
DUB	- Dysfunctional uterine bleeding
FSH	- Follicle Stimulating Hormone
GABA	- Gamma amino butyric acid
GH	- Growth Hormone
GnRH	- Gonadotropin Releasing Harmon e
HPO axis	- hypothalamo pituitary ovarian axis
LH	- Luteinizing Hormone
LT	- Leucotrine
OCP	- Oral contraceptive pill

PCOS	- Poly cystic ovarian syndrome
PG	- Prostaglandin
PMS	- Premenstrual syndrome
RS	- Respiratory syndrome
TB	- Tuberculosis
TSH	- Thyroid Stimulating Hormone
USG	- Ultra sonogram
WHO	- World Health Organization

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PROFORMA

Name : Age : Standard :

MENSTRUAL HISTORY

Attained Menarche	:	Yes/No
Age of Menarche	:	
Menstrual Cycles	:	Regular / Irregular
Duration of Flow	:	3-6 / < 3 / > 7 days
Duration of cycles	:	<21 / 21 to 35 / > 35
Quantity	:	Pads soaked/day –
Passing Clots	:	Yes/No
Dysmenorrhoea	:	Yes/No
Other Symptoms Nausea	:	Yes/No
Vomiting	:	Yes/No
Head ache	:	Yes/No
Depression	:	Yes/No
Fatiquiability	:	Yes/No

Premenstrual Symptoms :

Breast tenderness	:	Yes/No
Abdominal Bloating	:	Yes/No
Headache	:	Yes/No
Sleeplessness	:	Yes/No
Weight Gain	:	Yes/No
Emotional Liability	:	Yes/No

Daily routines

School Attendance	:	Affected / Not affected
Social Commitments	:	Affected / Not affected
Appetite :	:	Affected / Not affected
Sleep	:	Affected / Not affected

Needs Bedrest : Yes/No

Awareness about menstruation - Good/Poor

Source of awareness : Mother / Sisters / friends / Media

Menstrual Hygiene : Good/Poor

Past History

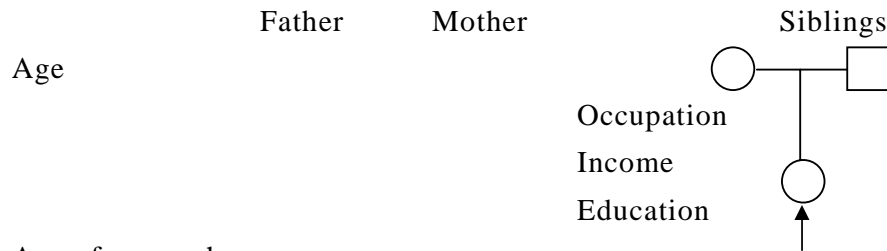
Medical illness : TB/Cervical adenitis/ Hypothyroid/
Hyper Thyroid / Bleeding disorders
– epistaxis / mucosal bleeds / Renal
diseases

Surgical illness :

Vaginal Discharge/Infections :

Treatment History

Family History : TB/Thyroid Disorders / Bleeding disorders



Age of menarche

Age of menopause

Age of menarche

H/O – PCOS/Infertility

Personal History

Frequency of bladder Emptying at schools

Bowel Habits

School Performance

Examination

Built : Thin/Well Height

Nourishment : Well/Poor Weight

Pulse Rate BMI

Blood Pressure

Pallor	:	+/-	Tanner Staging
Edema	:	+/-	Breast -
Acne	:	+/-	Pubic hair -
Hirsutism	:	+/-	Auxiliary Hair
Features of Thyroid Disorders	:	Goitre/Eye Sign /Voice change/Skin	
Features of Bleeding disorders	:	Petechiae / Purpurae /mucosal bleeds	
CVS	:		
RS	:		
Abdomen	:		
CNS	:		

Investigations

Complete Hemogram	Hb	:
	PCV	:
	Platelets:	
	DC	:
	TC	:
	ESR	:

CXR

Mantoux

USG abdomen and pelvis :

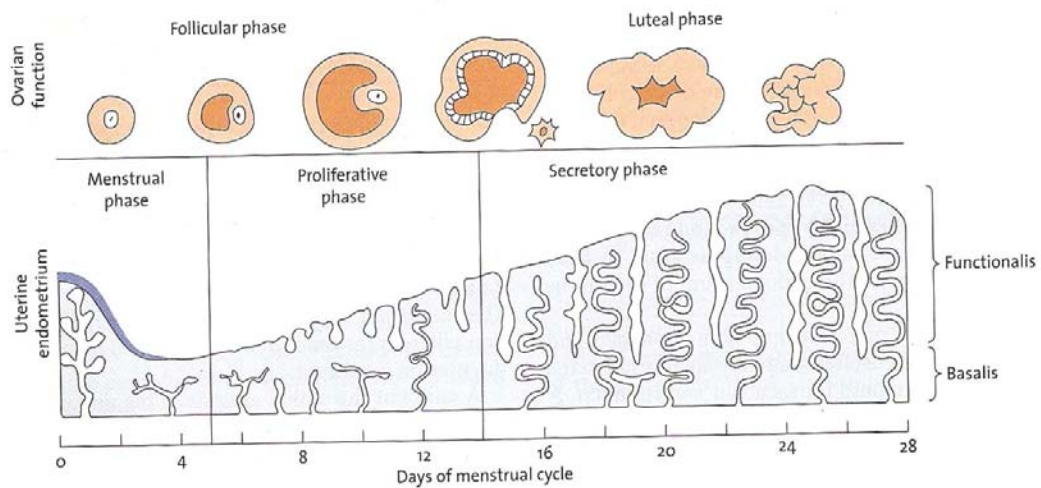
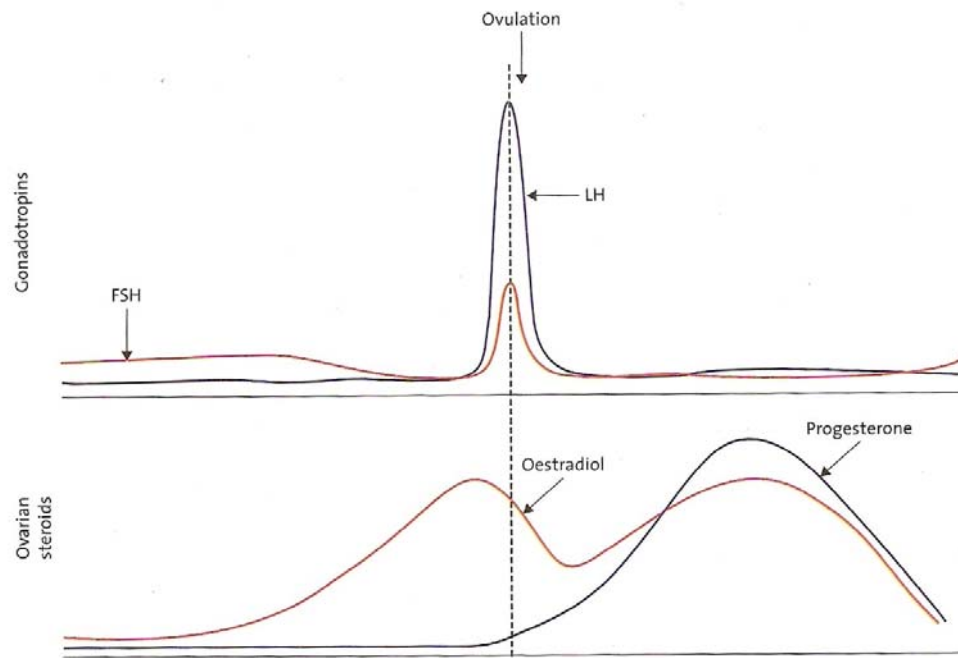
TSH

Hormones

Other Investigations

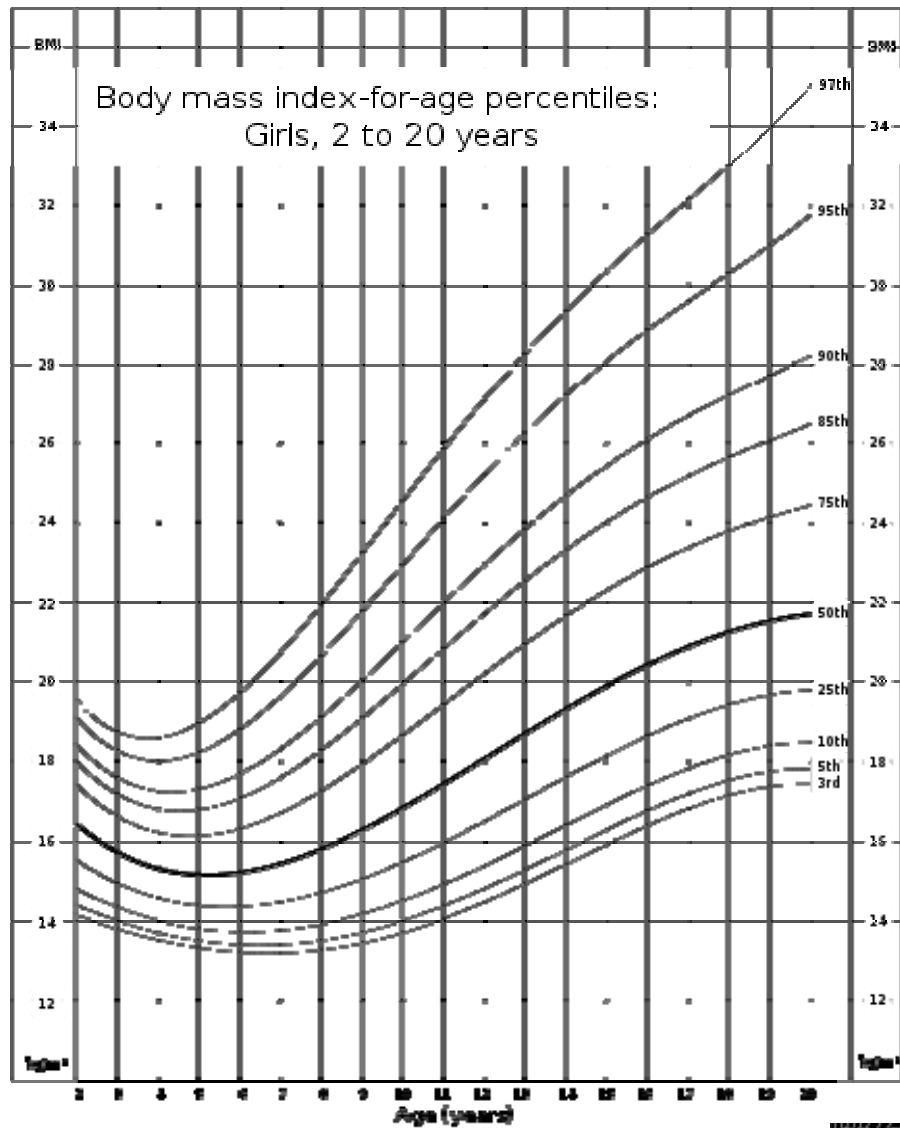
Diagnosis

PLASMA HORMONE LEVELS DURING MENSTRUAL CYCLES.



OVARIAN FUNCTION AND UTERINE ENDOMETRIAL CHANGES DURING MENSTRUAL CYCLES

BMI CHART FOR GIRLS.



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NOTES—DATE "FIELD-NO." 1

KEY TO MASTER CHART

NA	Not applicable
NK	Not Known
N	Normal
PCOS	Polycystic ovarian Syndrome
SES	Socio-Economic Status
AM	Age of Menarche
MC	Menstrual Cycles
DF	Duration of flow
DC	Duration of cycle
QTY	Quantity of flow (pads / day)
D	Dysmenorrhoea
BT	Breast Tenderness
AB	Abdominal bloating
SL	Sleeplessness
WG	Weight gain
EL	Emotional Liability
AW	Awareness on Menstruation
SSC	Secondary Sexual Characters
MH	Menstrual Hygiene
BE	Bladder emptying at school
BH	Bowel Habits
SE	Systemic Examination
TH	Signs of Thyroid disorder
BD	Signs of Bleeding disorder
PMS	Pre menstrual syndrome

ETHICAL COMMITTEE CERTIFICATE

I, **Dr. R.Bharathi** apply for the ethical committee certificate for the project **STUDY OF PROBLEMS RELATED TO MENSTRUATION IN ADOLESCENT GIRLS** under the guidance of **Prof. Dr.Radha Bai Prabhu, M.D.DGO.,** Institute of Obstetrics Gynaecology, Egmore, Egmore, Chennai - 600 008.

I understand the implications of doing research with human subjects and will fully comply with the regulations and keep the dignity and protect the health of subjects at all costs.


Signature of the Postgraduate Student

I have no objection to guide this postgraduate student in the project mentioned above. I shall supervise that all the human rights are protected and research is carried on with utmost humanitarian principles.


Signature of the Guide

Civil Surgeon,
JOG & Govt Hospital for Women & Children,
Egmore, Chennai - 600 008.

Seal

I certify that this project has been presented in front of the Ethical Committee, duly formatted in this institution and that all the members of the ethical committee have given permission to conduct this research.


CHAIRMAN ETHICAL COMMITTEE

Professor & Head
Dept. of Community Medicine
Stanley Medical College
Chennai - 600 001.

Date :

Seal

Review of literature

Aim of the study

Materials & Methods

Results & Analysis

Discussions

Summary

Conclusion

Recommendation

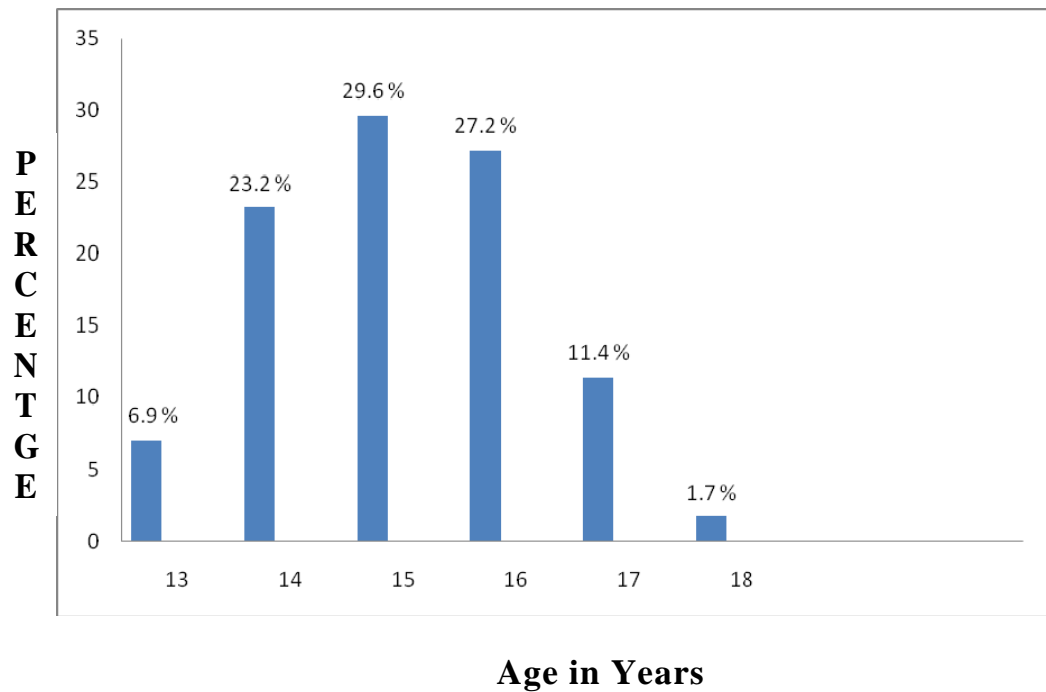
Abbreviations

Bibliography

Proforma

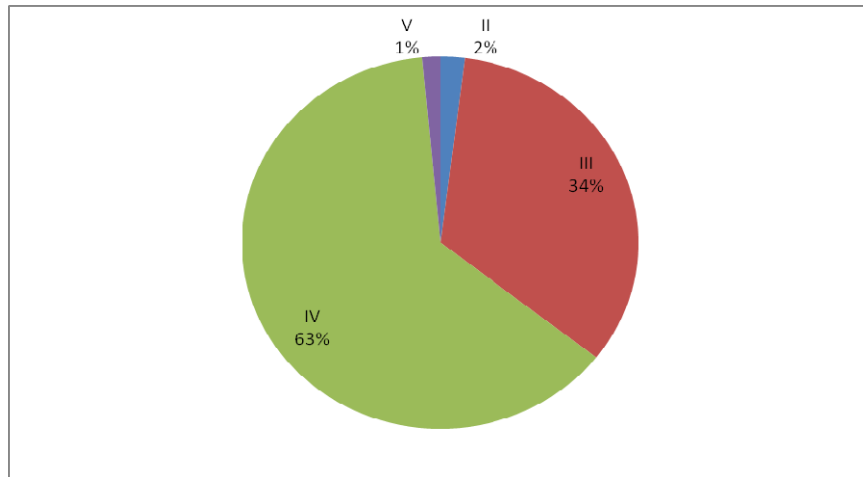
Master Chart

AGE DISTRIBUTION IN PERCENTAGE



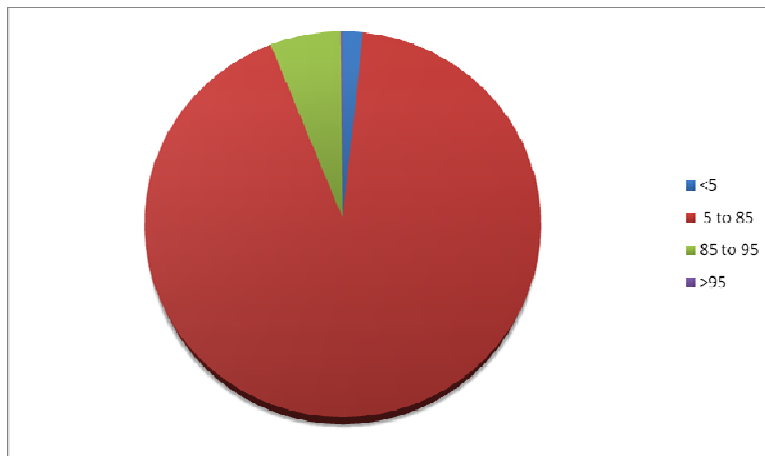
Age of the study group ranged from 13 -18 years. Maximum were in the age between 14-16 years.

DISTRIBUTION OF SOCIOECONOMIC STATUS



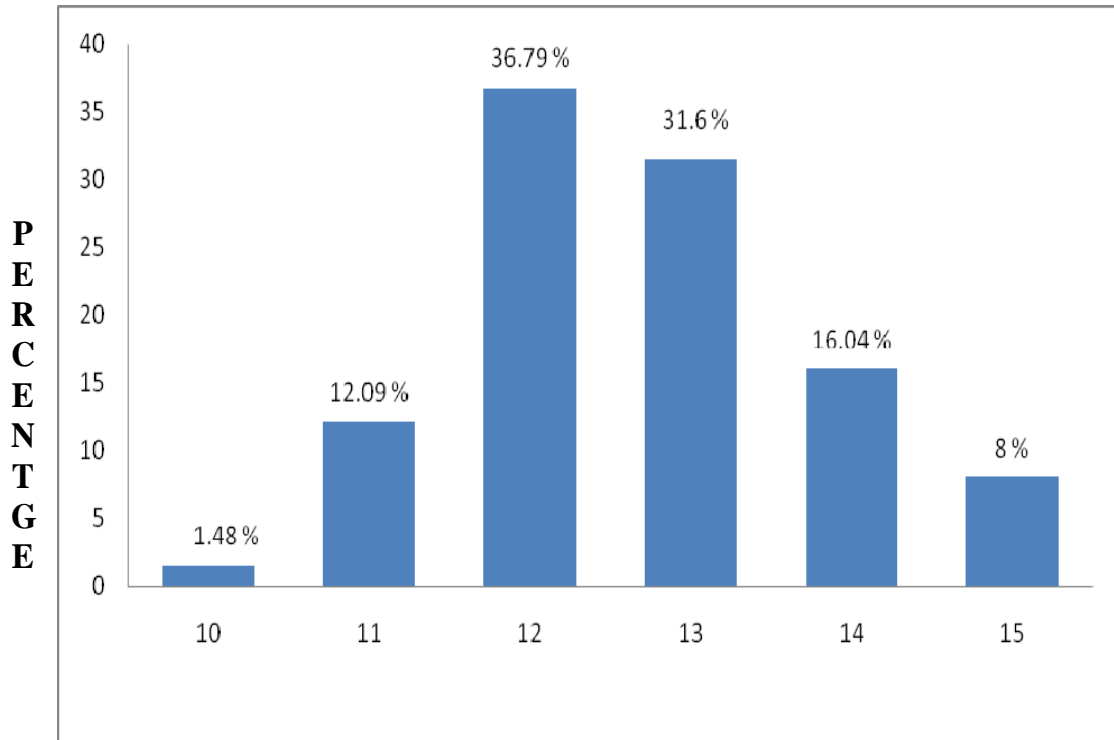
2% in class II , 34% in class III , 63% in class IV and 1% in class v socio economic status.

DISTRIBUTION OF BMI PERCENTILE



BMI DISTRIBUTION IN PERCENTILE: <5-1.7%, 5 to 85 - 92.1% , 85 to 95 – 5.9% and >95- 0.2%

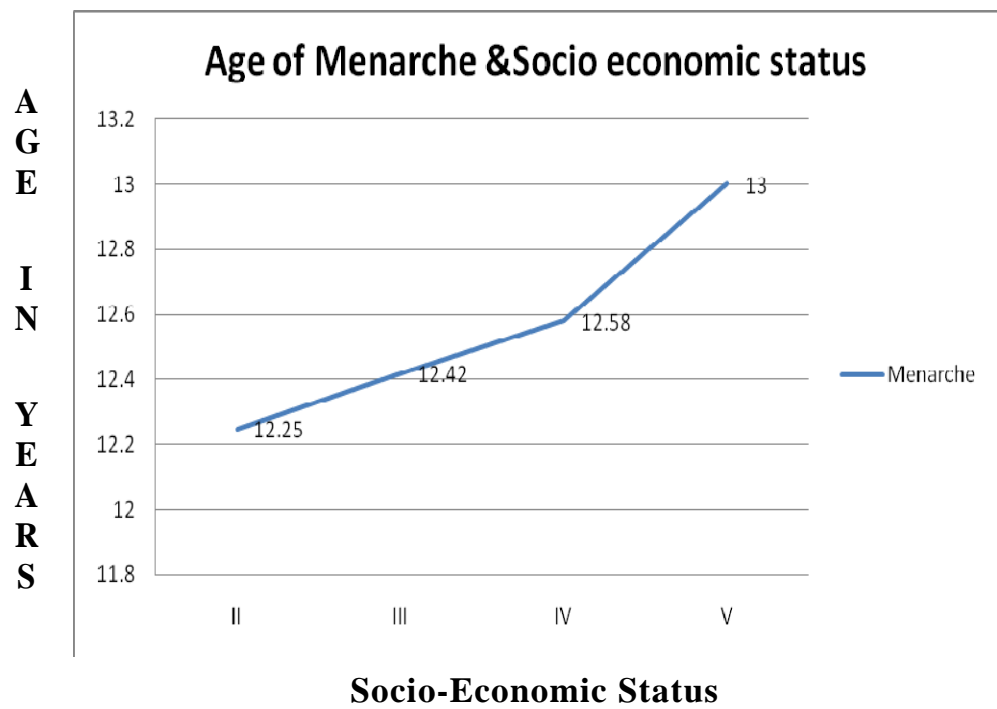
DISTRIBUTION OF AGE OF MENARCHE IN PERCENTAGE



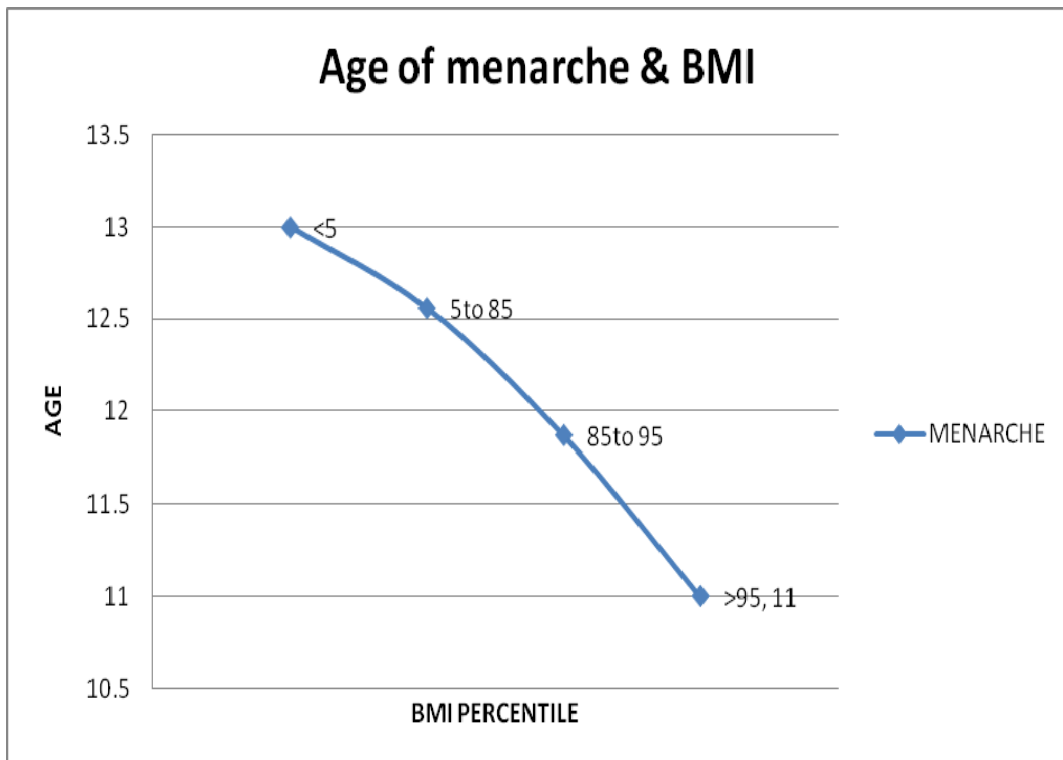
AGE OF MENARCHE

Age of menarche ranged from 10 to 15 in this study with maximum numbers in the age of 12 and MEAN AGE OF MENARCHE is 12.53 Years.

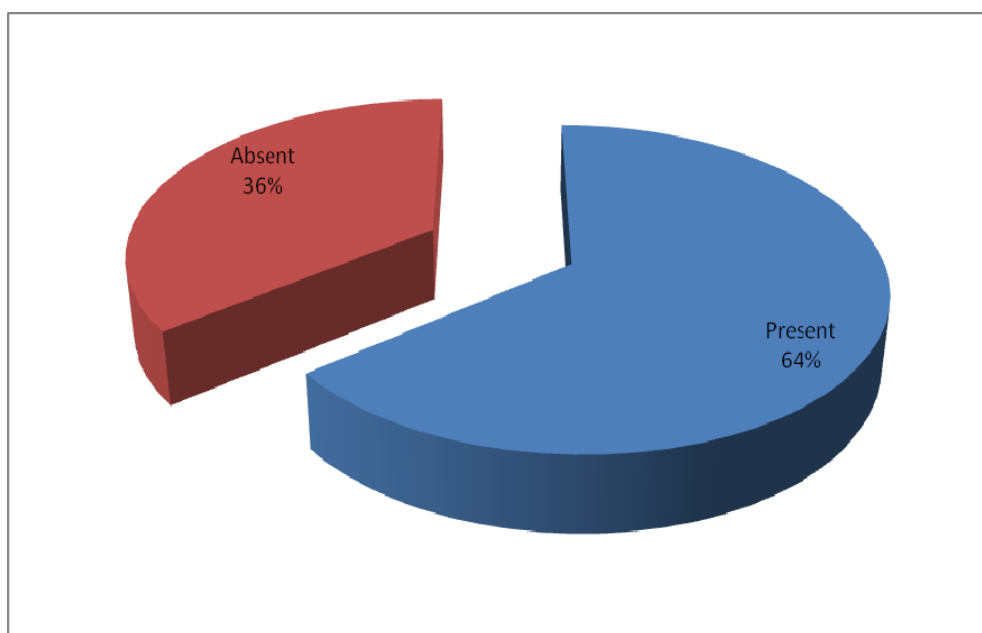
**CORRELATION BETWEEN SOCIO
ECONOMIC STATUS AND AGE OF MENARCHE**



CORRELATION BETWEEN BMI AND AGE OF MENARCHE

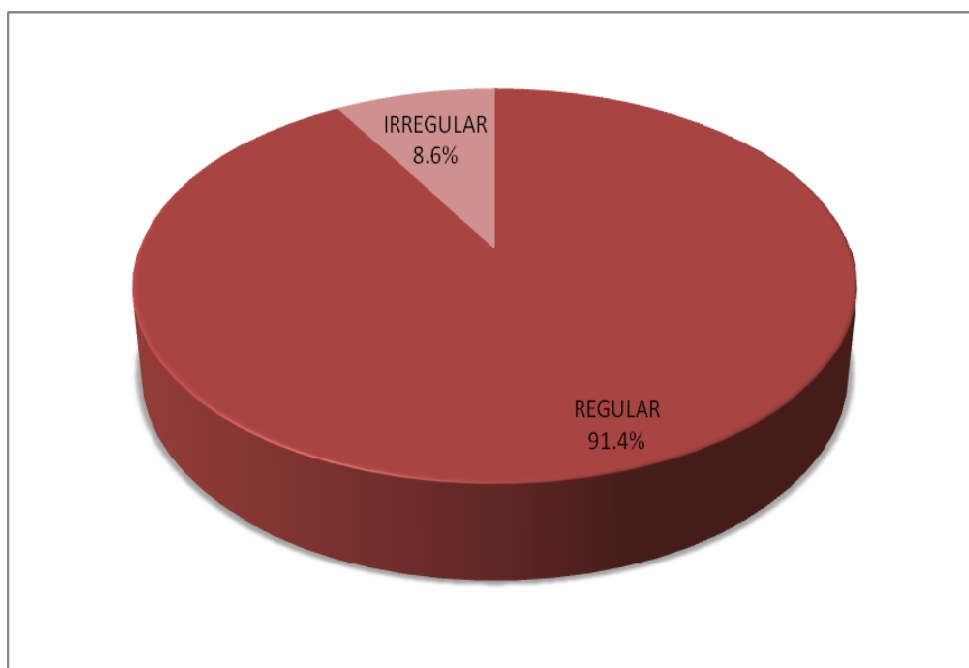


PERCENTAGE WITH MENSTRUAL PROBLEMS

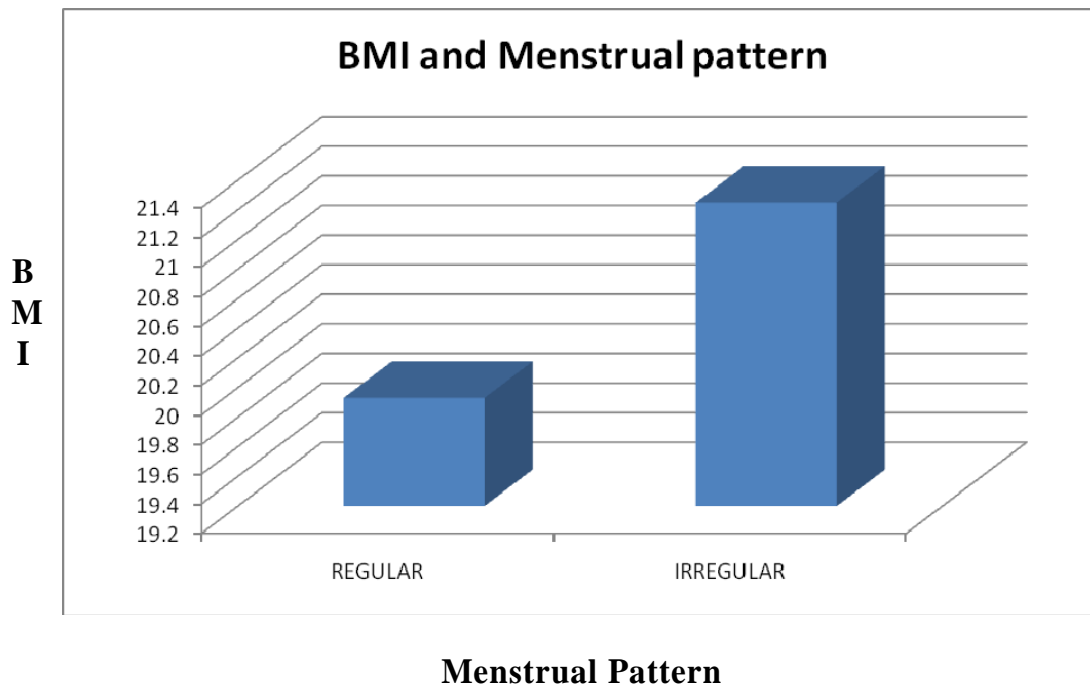


Menstrual problems were present in 64.45 % of girls. While 35.55 % had no menstrual problems.

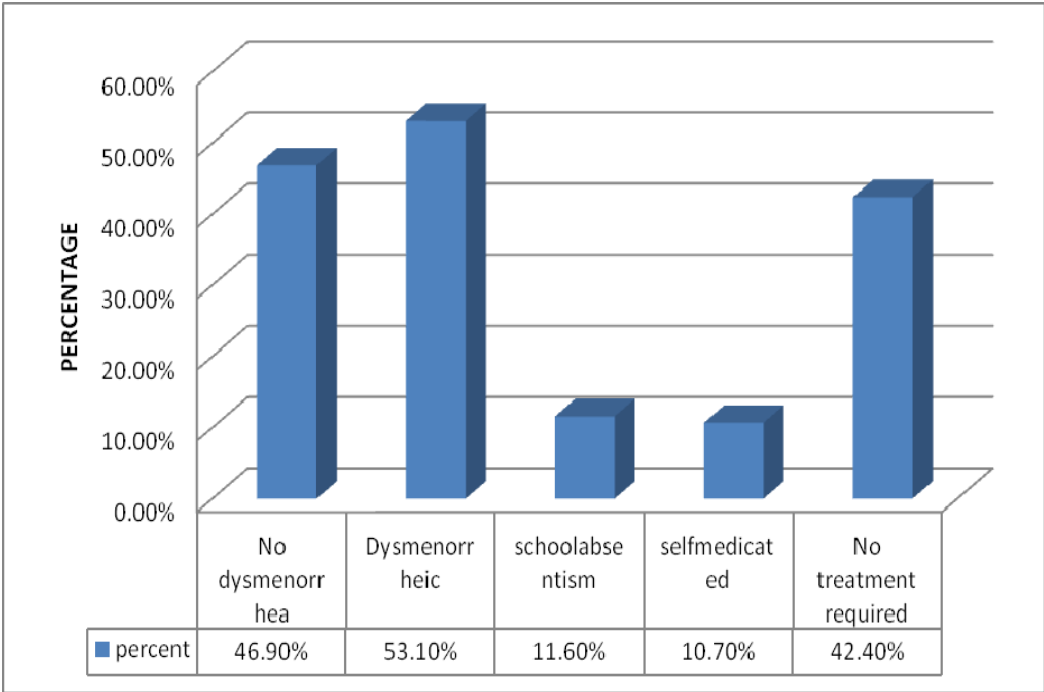
MENSTRUAL PATTERN



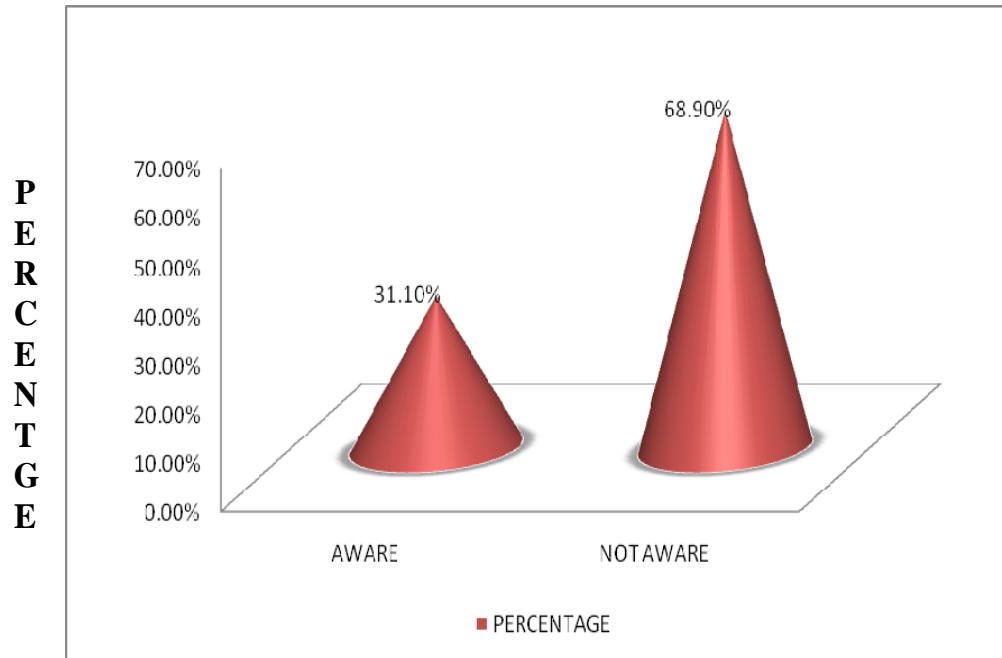
CORRELATION BETWEEN BMI AND MENSTRUAL PATTERN



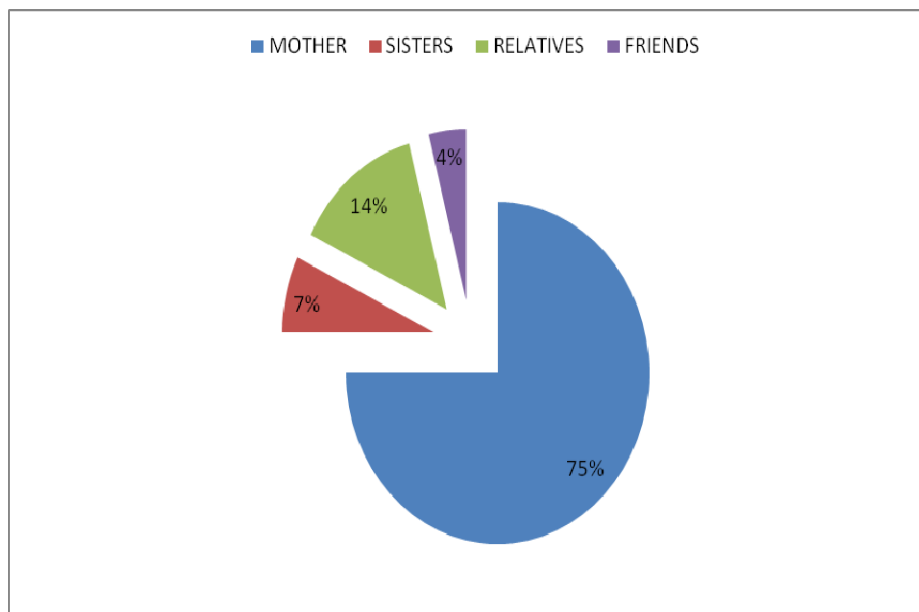
DYSMENORRHOEA



AWARENESS ABOUT MENSTRUATION

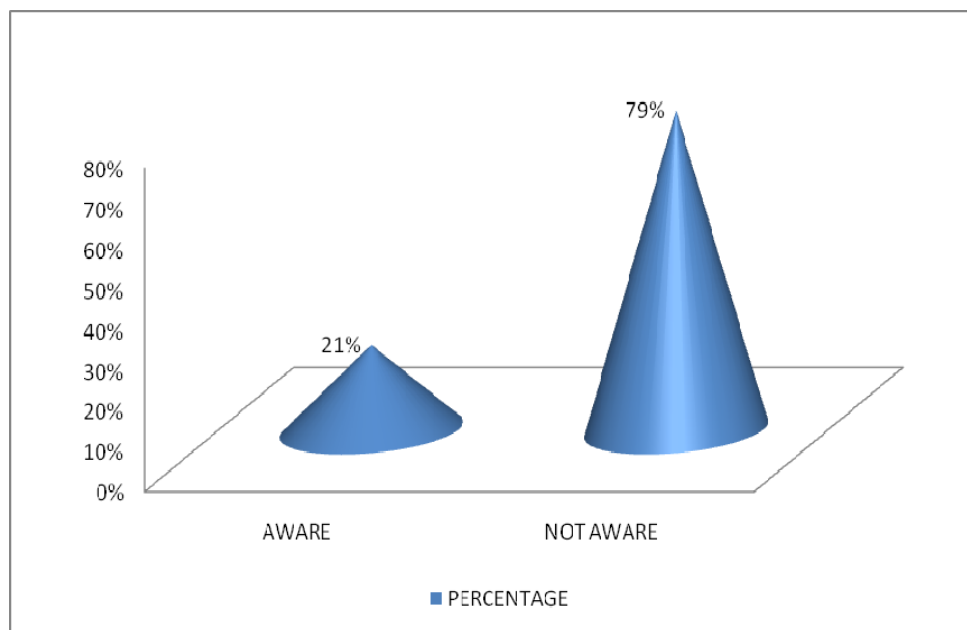


SOURCE OF AWARENESS ON MENSTRUATION



AWARENESS ON PREGNANCY AND CONTRACEPTION

P
E
R
C
E
N
T
A
G
E



				MENSTRUAL HISTORY										PMS					Daily Routines					Past History
S.no	Name	Age	SES	AM	MC	DF	DC	QTY	D	Nausea	Vomitting	headache	Depression	BT	AB	SL	WG	EL	School attendance affected	Social commitments affected	AW	Source of awareness	Menstrual hygiene	Medical illness
1	R Aswini	15	IV	12	irregular	4to5	45-60	3	No	No	No	No	No	No	No	No	No	No	No	Yes	Poor	Aunt	Good	Nil
2	kalaarasi	18	IV	13	irregular	6to7	60	3	yes	No	No	No	No	no	No	No	No	yes	Yes	Yes	Poor	mother	Good	Nil
3	A.Deepika	17	III	14	regular	3	30	1	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	?Thyroid
4	K.Maha lakshmi	17	IV	12	irregular	3to4	40-60	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
5	priyanka	17	III	12	irregular	4to5	90	3	No	No	No	yes	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
6	M.Nithya	17	IV	11	regular	8	30	3	yes	No	Yes	No	No	No	No	No	No	No	No	No	Poor	sister	Good	?PCOS
7	V.Kalai arasi	16	III	14	irregular	4to5	60-90	2	No	No	No	yes	No	No	No	No	No	No	No	No	Good		Good	Nil
8	oviya	16	III	13	irregular	3to4	<21	2	yes	Yes	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
9	R.Shan mugapriya	16	IV	14	irregular	2to3	<21	2	No	No	No	No	No	yes	No	Yes	No	No	No	No	Poor	mother	Good	Nil
10	Gayathri	16	IV	13	regular	3to4	30	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
11	Usharani	16	IV	14	irregular	3	60-90	2	No	No	No	No	No	No	No	No	No	No	Yes	No	Poor	Aunt	Good	?PCOS
12	Nandhini	16	III	13	irregular	5	60	3	no	No	No	No	No	No	Yes	No	No	No	No	No	Poor	mother	Good	Seizure
13	Ponvizhi	16	III	12	irregular	2to3	45-60	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	sister	poor	Nil
14	Geetha	16	III	13	regular	3to4	30to35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
15	Suganya	16	IV	14	irregular	2to3	45-50	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
16	Selvi	16	IV	13	irregular	3to4	50-60	3	No	Yes	No	No	No	No	No	No	No	No	No	No	Poor		Good	Nil
17	Preetha	16	IV	14	regular	3to4	30	2	yes	no	No	No	No	No	No	No	No	No	No	Yes	Poor	sister	Good	Nil
18	muthupriya	16	III	13	regular	4to5	30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	sister	Good	?TB
19	pavithra	15	IV	13	irregular	3to6	60	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
20	priya	15	III	13	irregular	2to3	45-60	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
21	sumathy	15	III	11	irregular	3to4	60-90	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
22	Bhuvanesh	15	III	13	irregular	2to3	6 months	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
23	Shulimty	15	III	11	irregular	3to4	45-60	3	yes	Yes	Yes	No	No	yes	No	Yes	No	No	Yes	Yes	Good	mother	Good	Nil
24	Sandhya	14	IV	12	irregular	3to4	45-60	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
25	Shajitha	14	III	12	irregular	7	60-90	1	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
26	Nandhini	13	II	10	irregular	5	60-90	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
27	Saranya	13	II	11	regular	8to 10	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
28	preethima	13	IV	11	regular	3to4	30-35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
29	S.Gaythri	13	III	11	regular	4	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
30	Dhanalaksmi	17	III	13	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
31	Vijayalakshmi	17	IV	15	regular	4to5	30-35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
32	Sriranjani	16	IV	13	regular	4to5	33-35	2	yes	No	Yes	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
33	Mahalakshmi	17	IV	14	regular	3to4	25-30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
34	Karthiga	17	III	14	regular	5to7	30-32	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
35	Rajeswari	17	IV	12	regular	3to5	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
36	Sowmya	16	IV	12	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
37	Kokila	17	IV	14	regular	3to5	25-30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
38	Deepa	16	IV	12	regular	3to4	30-35	3	yes	no	No	No	No	No	Yes	No	No	No	No	Yes	Poor	sister	Good	Nil
39	Kavitha	16	III	14	regular	3to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
40	Evanjaline	17	IV	13	regular	5to6	30-35	2	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
41	Jacksharmila	16	IV	14	regular	4to5	28-32	3	yes	no	No	No	No	No	No	No	No	No	Yes	No	Good	mother	Good	Nil
42	Sofia rani	17	IV	14	irregular	3	45	3	yes	Yes	No	yes	No	No	No	No	No	No	No	No	Good	mother	Good	asthma
43	Laksmi	17	IV	15	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	poor	Nil
44	Elsirani	16	IV	12	regular	3to4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
45	Nandhini	16	III	14	regular	4to5	32-35	2	No	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil

S.no	Name	Age	SES	MENSTRUAL HISTORY										PMS					Daily Routines					Past History
				AM	MC	DF	DC	QTY	D	Nausea	Vomitting	headache	Depression	BT	AB	SL	WG	EL	School attendance affected	Social commitments affected	AW	Source of awareness	Menstrual hygiene	Medical illness
46	sumathy	17	III	13	regular	3to5	35	2	yes	Yes	Yes	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
47	Suhasini	16	II	14	regular	3to4	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
48	Mohidha	17	II	14	regular	5	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
49	Suganya	17	IV	14	regular	4to5	35	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
50	Hemalatha	17	IV	13	regular	4	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
51	Prathiba	17	III	13	regular	5	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Good	mother	Good	Nil
52	Jinitha	15	IV	12	regular	3to4	30-32	2	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
53	Sivaranjini	16	IV	12	regular	4to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	asthma
54	Karthiga	16	IV	14	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
55	Ashwini	18	IV	12	regular	5to6	30-32	2	yes	no	No	yes	No	No	Yes	No	No	No	no	No	Poor	mother	Good	Nil
56	Priya	16	IV	12	regular	4to5	30-35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
57	Amulrani	17	IV	13	regular	3to4	25-30	2	yes	no	Yes	yes	No	No	No	No	No	No	Yes	No	Poor	sister	Good	Nil
58	sumathy	16	III	14	regular	4	28-32	3	yes	no	No	yes	No	No	No	No	No	No	No	Yes	Good	mother	Good	MVPS
59	Sheeba	17	III	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
60	V.Aswini	16	IV	14	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	TB
61	Bharathi	15	IV	13	regular	3to4	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
62	Gayathri	15	IV	12	regular	4	30to35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
63	Jayasri	16	IV	12	regular	4to5	35to40	3	yes	no	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
64	Janaki	16	IV	12	regular	3	30to35	2	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
65	Saranya	17	III	15	regular	3to4	35	3	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	Aunt	Good	Nil
66	kaviya	15	IV	12	regular	3to4	32-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	sister/friends	Good	Nil
67	Nandhini	15	IV	12	regular	3to5	30-35	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
68	Amudha	15	IV	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	Friends	Good	Nil
69	Thenmozhi	15	III	12	regular	4to5	35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Good	Sisters	Good	Nil
70	Anitha	16	III	13	regular	4	25-30	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
71	Priya	14	III	12	regular	3to4	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
72	R.Priya	16	IV	13	regular	3to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
73	J.Priya	15	IV	13	regular	3	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
74	Yuvarani	16	III	14	regular	3to4	32-35	1	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
75	Deepika	14	IV	11	regular	3	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
76	Sureka	15	IV	13	regular	3to4	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
77	Shanmugapriya	15	IV	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
78	Durga	14	IV	12	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
79	B.Deepa	16	III	13	regular	3	35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Nil
80	Nivedha	15	IV	13	regular	3to4	30-35	3	No	no	Yes	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
81	Divya Bharathi	14	IV	12	regular	3to4	30-33	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
82	Sasipriya	14	III	11	regular	5to6	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	Yes	Poor	Friends	Good	Nil
83	KarunaDevi	14	IV	12	regular	4	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
84	Divya.	15	IV	12	regular	3	30	2	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
85	Durga Poorani	15	III	12	regular	3to4	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	Aunt	Good	Nil
86	Soundari	15	IV	12	regular	3	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
87	Deepika	15	IV	12	regular	3	30-32	3	No	no	No	No	No	No	No	No	No	No	No	no	Good	Friends	Good	Nil
88	Priya	15	IV	13	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
89	Nirmala	14	III	11	regular	3to4	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
90	Sharmila	14	III	12	regular	3	30-32	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
91	Kavitha	14	III	12	regular	4to5	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Vitiligo

				MENSTRUAL HISTORY										PMS					Daily Routines					Past History
S.no	Name	Age	SES	AM	MC	DF	DC	QTY	D	Nausea	Vomitting	headache	Depression	BT	AB	SL	WG	EL	School attendance affected	Social commitments affected	AW	Source of awareness	Menstrual hygiene	Medical illness
92	Hemalatha	14	IV	12	regular	4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
93	Vani	15	IV	13	regular	3	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
94	priyanka	15	III	12	regular	4to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	Aunt	Good	Nil
95	Ramya	15	III	13	regular	4	28-30	3	yes	no	No	No	no	No	no	No	No	No	No	No	Poor	mother	Good	Nil
96	pavithra	15	IV	13	regular	3	30	2	No	no	No	No	No	No	no	No	No	No	No	No	Good	mother	Good	Nil
97	Sujatha	16	IV	14	regular	5to6	35-40	3	yes	Yes	Yes	yes	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
98	Priya	14	III	12	regular	3	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
99	priyanka	14	III	12	regular	3to4	35-40	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
100	Mangalam	15	IV	13	regular	3to4	40	3	No	no	No	No	yes	No	No	No	No	No	No	No	Poor	mother	Good	Nil
101	Sindhu	15	III	13	regular	3	35	2	yes	no	No	No	No	No	No	Yes	No	No	No	No	Good	mother	Good	Nil
102	Gajalaks	14	IV	12	regular	4to5	35	3	yes	Yes	No	yes	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
103	Jeevitha	16	III	11	regular	3	25-30	3	No	No	Yes	No	No	no	No	No	No	No	No	No	Poor	mother	Good	Nil
104	Bhuvana	14	IV	12	regular	4	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
105	Suganthi	15	IV	13	regular	3	30	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
106	Sarojini	16	IV	13	regular	4	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
107	Anu	14	IV	12	regular	3	30	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
108	Gowthami	15	IV	13	regular	3	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
109	Hemavathi	15	IV	12	regular	3to4	30-35	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
110	Meena	14	IV	12	regular	3to5	28-30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
111	Amala	14	IV	12	regular	4to5	30	2	No	No	No	No	No	No	Yes	No	No	No	No	No	Poor	mother	Good	Nil
112	PriyaRaj	15	IV	13	regular	3	30-32	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
113	Habisaya	14	III	12	regular	3	35	3	yes	No	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	Aunt	Good	Rhinitis
114	Saranya	16	IV	12	regular	3	30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	sisters	Good	Nil
115	Bhuvaneshwari	15	III	13	regular	6	30-35	3	yes	No	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
116	Murugavalli	16	IV	14	regular	4	35	3	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
117	Saranya	13	IV	11	regular	3to4	30-35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Nil
118	Tamilselvi	14	IV	12	regular	4to5	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
119	Sangeetha	15	IV	13	regular	4to5	30	2	yes	No	No	No	No	No	No	No	No	Yes	No	No	Poor	mother	Good	Nil
120	Jayanthi	15	V	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
121	Aswini	15	IV	10	Regular	3to4	30-32	3	Yes	No	no	no	no	no	no	no	no	no	no	no	poor	mother	good	nil
122	Sudha	14	III	12	Regular	4	30-35	3	Yes	No	No	No	no	no	no	no	no	no	Yes	Yes	poor	mother	good	Nil
123	Praveena	13	III	11	Regular	3	30-35	2	Yes	No	No	No	no	no	no	no	no	no	no	no	poor	mother	good	Nil
124	Thenmozhi	14	IV	12	Regular	4	30	2	No	No	No	No	no	no	no	no	no	no	no	no	poor	aunt	good	Nil
125	Jenifer	13	IV	11	Regular	4to5	30-35	2	No	No	No	Yes	no	no	no	no	no	no	no	no	good	mother	good	Nil
126	Sathya	14	III	12	Regular	3	30	2	No	yes	yes	No	no	no	no	no	no	no	no	no	good	friends	good	Nil
127	Valarmathy	15	V	13	Regular	3	35	2	No	No	No	Yes	no	no	no	no	no	no	no	no	poor	mother	good	Nil
128	Shanthi	15	IV	13	Regular	3to4	28-32	3	Yes	No	yes	Yes	no	no	no	no	no	no	Yes	Yes	good	mother	good	Nil
129	S.Deepa	14	IV	12	Regular	4to5	30	2	Yes	No	No	No	no	no	no	no	no	no	no	no	good	mother	good	Nil
130	Rabeka	15	IV	13	regular	3	30-33	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
131	Gomathy	14	III	12	regular	4	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
132	Agalya	14	IV	12	regular	3	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
133	Sofia	14	V	13	regular	3to4	35	2	yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Poor	mother	Good	Nil
134	Hannah	15	III	12	regular	3to4	35	3	No	Yes	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Con.ptosis
135	E.Gaythri	14	IV	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
136	I.Shankari	14	III	12	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
137	lavanya	14	IV	12	regular	5to6	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil

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138	Jeyshami	13	IV	11	regular	5	30	3	No	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
139	S.lavanya	15	IV	13	regular	4	25-30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
140	Girja	14	III	12	regular	5	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
141	Lakshmi	14	IV	11	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
142	Soundarya	14	III	12	regular	4	35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
143	Haripriya	15	IV	13	regular	3	32-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	Sister	Good	Nil
144	Kanimozhi	13	IV	11	regular	5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
145	A.Divya	13	III	10	regular	5	28-30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
146	Kalaivani	13	III	11	regular	6	35	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
147	Lydiaclara	14	IV	12	regular	3to4	30-32	4	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
148	Dharshini	15	III	13	regular	3	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
149	Ranjeetha	14	IV	12	regular	4to5	30	4	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
150	Sangeetha	14	III	11	regular	3to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
151	Preethi.	14	IV	12	regular	5	32	3	yes	no	No	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Headache
152	Sandhya	14	IV	12	regular	6	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
153	pavithra	14	IV	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
154	S.Priya	13	IV	11	regular	3	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
155	A.Pramila	14	IV	11	regular	5	30-33	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
156	Deivanayagi	14	III	12	regular	5	30	3	No	no	No	No	No	No	No	No	No	No	no	No	Poor	Aunt	Good	Nil
157	Malini	14	III	12	regular	6	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
158	Sweetha	15	IV	13	regular	4	32	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
159	Parkavi	16	III	13	regular	4to5	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
160	Shanmili	15	IV	13	regular	5	30-35	4	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
161	Hemavathy	13	III	11	regular	4	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
162	Eswari	15	IV	12	regular	3	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
163	Nimmi	14	IV	11	regular	4	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
164	Dhanusri	16	IV	12	regular	4	30	1	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	poor	Nil
165	Monika	13	III	11	regular	5to6	35	3	yes	no	No	No	No	No	No	Yes	No	No	No	No	Poor	mother	Good	Nil
166	Bhavani	15	IV	13	regular	4	35-40	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
167	priyanka	14	IV	12	regular	3	35	2	yes	no	No	No	yes	No	No	No	No	No	No	No	Good	mother	Good	Nil
168	Sripriya	15	IV	13	regular	3	35-40	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
169	Sharmila	15	IV	13	regular	3	30	2	yes	no	No	No	No	yes	Yes	No	No	yes	No	No	Good	Aunt	Good	Nil
170	Sharmily	14	IV	12	regular	4to5	35	3	yes	Yes	No	No	yes	No	No	No	No	yes	No	No	Good	Friends	Good	Nil
171	Selvi	15	IV	13	regular	4	30	4	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
172	Nithya	16	III	11	regular	3	35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
173	Poongodi	14	IV	12	regular	3to4	30-32	3	yes	Yes	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
174	Nishanthi	16	IV	13	regular	4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
175	Thulasi	16	IV	14	regular	3	25-30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
176	Rajalaxmi	15	IV	12	regular	5to6	32-35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
177	Catherine	15	III	12	regular	3	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
178	C.Devi	15	IV	13	regular	4	30	4	No	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
179	Nandhini	15	IV	13	regular	2to3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
180	Vinodhini	16	III	14	regular	4	30-35	4	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
181	Mithra	15	IV	12	regular	4to5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	old TB
182	Gayathri	16	III	14	regular	3	30-32	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
183	Krithika	15	III	13	regular	4	35	1	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Nil

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184	Narmadha	15	III	12	regular	3	35-40	1	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
185	Sunitha	16	IV	12	regular	4to5	30	2	yes	no	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
186	Logeswari	15	IV	13	regular	3	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
187	Jayasri	16	IV	14	regular	3to5	35	2	yes	no	Yes	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Nil
188	Sandhya	17	III	12	regular	6	35	2	No	no	No	No	No	No	No	No	No	No	No	no	Poor	mother	Good	Nil
189	N.Devi	16	IV	13	regular	3	30	3	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
190	Malarkodi	18	IV	14	regular	4to5	28-30	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	Sister	Good	Nil
191	Sumitra	16	IV	13	regular	3	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
192	Sangeetha	15	IV	13	regular	3	32	1	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
193	ILLAKIYA	16	IV	14	regular	4	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	sisters	Good	Nil
194	Emmimal	17	IV	11	regular	4to5	35-40	2	yes	Yes	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
195	Bhavani	17	IV	14	regular	5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
196	Soundarya	16	IV	13	regular	2to3	35	1	No	no	No	No	no	No	no	No	No	No	No	Yes	Good	mother	Good	Nil
197	Nandhini	18	IV	14	regular	4	30	2	yes	no	No	No	No	No	no	No	No	No	No	No	Poor	friends	Good	Nil
198	Satyavani	17	IV	15	regular	4	30	4	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	Aunt	Good	BA
199	Seetha	16	III	14	regular	4to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	friends	Good	Nil
200	Princy	16	IV	12	regular	5	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
201	Sharmila	16	III	14	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
202	Sermakani	15	IV	13	regular	4	32-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
203	R.Divya	16	III	14	regular	3to4	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Good	Sisters	Good	Nil
204	Parvathi	15	IV	12	irregular	4to5	50-60	3	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Poor	Aunt	Good	Nil
205	Kalai	16	IV	13	irregular	7	60	3	No	No	No	No	No	no	No	No	No	yes	No	No	Poor	mother	Good	Nil
206	A.Deepa	17	III	14	regular	3	30	1	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	?Thyroid
207	Iakshmi	16	IV	12	irregular	3to4	40-60	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
208	praneetha	17	III	12	irregular	5	90	4	No	No	No	yes	No	No	No	No	No	No	Yes	No	Poor	sister	Good	Nil
209	S.Nithya	16	IV	13	irregular	4	<21	3	yes	No	Yes	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
210	Anu	16	III	14	irregular	4to5	50to60	2	No	No	No	yes	No	No	No	No	No	No	No	No	Good		Good	Nil
211	Srimathy	16	III	13	regular	3to4	25-30	2	yes	Yes	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
212	Anjali	16	IV	13	regular	2to3	30	2	No	No	No	No	No	yes	No	Yes	No	No	No	No	Poor	mother	Good	Nil
213	Niveditha	16	IV	13	regular	3to4	30	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
214	Usha	16	IV	14	irregular	3	60-90	2	yes	No	No	No	No	No	No	No	No	No	Yes	No	Poor	Aunt	Good	?PCOS
215	Nandhitha	16	III	13	irregular	5	60	3	No	No	No	No	No	No	Yes	No	No	No	No	No	Poor	mother	Good	Seizure
216	Poovizhi	16	III	12	irregular	3	45-60	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	sister	poor	Nil
217	Geetha	16	III	13	regular	3to4	30to35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
218	Suguna	16	IV	14	regular	2to3	30to35	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
219	Selvi	16	IV	13	regular	3to4	40-45	3	yes	No	No	No	No	No	No	No	No	yes	Yes	No	Poor		Good	Nil
220	Preethi	16	IV	14	regular	3to4	30	2	yes	no	No	No	No	No	No	No	No	No	No	Yes	Poor	sister	Good	Nil
221	Nisha	16	III	13	regular	4to5	30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	sister	Good	TB
222	pavithra	15	IV	13	irregular	3to6	60	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
223	Gugapriya	15	III	13	irregular	2to3	45-60	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
224	sumalatha	15	III	11	irregular	3to4	60-90	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
225	Bindhu	15	III	13	regular	2to3	30	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
226	Sheela	15	III	11	irregular	3to4	45-60	3	No	no	No	No	No	yes	No	Yes	No	No	Yes	Yes	Good	mother	Good	Nil
227	Sindhuja	14	IV	12	regular	3to4	37-40	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
228	Sarojini	14	III	12	irregular	4to5	50-60	1	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil

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229	Nazreen	13	II	10	irregular	5	60	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
230	Saranya	13	II	11	regular	5to7	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
231	prathiba	13	IV	11	regular	3to4	30-35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
232	Vanathy	13	III	11	regular	4	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
233	Komagal		III	13	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	Yes	No	Good	mother	Good	Nil
234	Vijaya	17	IV	15	regular	4to5	30-35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
235	Ranjani	16	IV	13	regular	4to5	33-35	2	yes	No	Yes	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
236	Thallaikarasi	17	IV	14	regular	3to4	25-30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
237	Srilatha	17	III	14	regular	5to7	30-32	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
238	Rajeswari	17	IV	12	regular	3to5	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
239	Vinitha	16	IV	12	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
240	Kokilavani	17	IV	14	regular	3to5	25-30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
241	Deepa	16	IV	12	regular	3to4	30-35	3	yes	no	No	No	No	No	Yes	No	No	No	No	Yes	Poor	sister	Good	Nil
242	Kavitha	16	III	14	regular	3to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
243	Elamathy	17	IV	13	regular	5to6	30-35	2	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
244	Janitha	16	IV	14	regular	4to5	28-32	3	yes	no	No	No	No	No	No	No	No	No	Yes	No	Good	mother	Good	Nil
245	Sofia	17	IV	14	irregular	3	45	3	yes	Yes	No	yes	No	No	No	No	No	No	No	No	Good	mother	Good	asthma
246	Laksmi	17	IV	15	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	poor	Nil
247	Daisyrani	16	IV	12	regular	3to4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
248	Nandha	16	III	14	regular	4to5	32-35	2	No	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
249	Mala	17	III	13	regular	3to5	35	2	yes	Yes	Yes	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
250	Subasri	16	II	14	regular	3to4	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
251	Yohidha	17	II	14	regular	5	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
252	Suganya	17	IV	14	regular	4to5	35	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
253	Hemalatha	17	IV	13	regular	4	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
254	Praveena	17	III	13	regular	5	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Good	mother	Good	Nil
255	Jinitha	15	IV	12	regular	3to4	30-32	2	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
256	Sivasankari	16	IV	12	regular	4to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	asthma
257	Karthika	16	IV	14	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
258	Aiswarya	18	IV	12	regular	5to6	30-32	2	yes	no	No	yes	No	No	Yes	No	No	No	no	No	Poor	mother	Good	Nil
259	Priya	16	IV	12	regular	4to5	30-35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
260	Arulrani	17	IV	13	regular	3to4	25-30	2	yes	no	Yes	yes	No	No	No	No	No	No	Yes	No	Poor	sister	Good	Nil
261	Suriya	16	III	14	regular	4	28-32	3	yes	no	No	yes	No	No	No	No	No	No	No	Yes	Good	mother	Good	MVPS
262	Shoba	17	III	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
263	Amirtha	16	IV	14	regular	3to4	30-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	TB
264	Bharathi	15	IV	13	regular	3to4	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
265	Niranjana	15	IV	12	regular	4	30to35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
266	G.Geetha	16	IV	12	regular	4to5	35to40	3	yes	no	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
267	Jameela	16	IV	12	regular	3	30to35	2	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
268	Shanthini	17	III	15	regular	3to4	35	3	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	Aunt	Good	Nil
269	Mary	15	IV	12	regular	3to4	32-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	sister/friends	Good	Nil
270	Neeraja	15	IV	12	regular	3to5	30-35	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
271	Amudha	15	IV	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	Friends	Good	Nil
272	Thanuja	15	III	12	regular	4to5	35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Good	Sisters	Good	Nil
273	Ambika	16	III	13	regular	4	25-30	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
274	Anusha	14	III	12	regular	3to4	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil

				MENSTRUAL HISTORY										PMS					Daily Routines					Past History
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275	M.Priya	16	IV	13	regular	3to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
276	Yasmine	15	IV	13	regular	3	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
277	Yuvasri	16	III	14	regular	3to4	32-35	1	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
278	Deepna	14	IV	11	regular	3	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
279	V.Sureka	15	IV	13	regular	3to4	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
280	Shanmugavalli	15	IV	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
281	Uma	14	IV	12	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
282	B.Deepa	16	III	13	regular	3	35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Nil
283	A.Nivedha	15	IV	13	regular	3to4	30-35	3	No	no	Yes	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
284	DivyaDharshini	14	IV	12	regular	3to4	30-33	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
285	Sasikala	14	III	11	regular	5to6	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	Yes	Poor	Friends	Good	Nil
286	Karunya	14	IV	12	regular	4	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
287	S.Divya.	15	IV	12	regular	3	30	2	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
288	Poorani	15	III	12	regular	3to4	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	Aunt	Good	Nil
289	Meera	15	IV	12	regular	3	35	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
290	Dharani	15	IV	12	regular	3	30-32	3	No	no	No	No	No	No	No	No	No	No	No	no	Good	Friends	Good	Nil
291	Padma	15	IV	13	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
292	Nirmala	14	III	11	regular	3to4	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
293	Sharmila	14	III	12	regular	3	30-32	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
294	L.Kavitha	14	III	12	regular	4to5	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Vitiligo
295	Hemavathi	14	IV	12	regular	4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
296	Vanisri	15	IV	13	regular	3	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
297	Preethi	15	III	12	regular	4to5	30-35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	Aunt	Good	Nil
298	Ramya	15	III	13	regular	4	28-30	3	yes	no	No	No	no	No	no	No	No	No	No	No	Poor	mother	Good	Nil
299	pavithra	15	IV	13	regular	3	30	2	No	no	No	No	No	No	no	No	No	No	No	No	Good	mother	Good	Nil
300	Sujatha	16	IV	14	regular	5to6	35-40	3	yes	Yes	Yes	yes	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
301	Devika	14	III	12	regular	3	35-40	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
302	Pramila	14	III	12	regular	3to4	35-40	1	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
303	Mohana	15	IV	13	regular	3to4	40	3	No	no	No	No	yes	No	No	No	No	No	No	No	Poor	mother	Good	Nil
304	Sindhu	15	III	13	regular	3	35	2	yes	no	No	No	No	No	No	Yes	No	No	No	No	Good	mother	Good	Nil
305	Malar	14	IV	12	regular	4to5	35	3	yes	Yes	No	yes	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
306	Jeevika	16	III	11	regular	3	25-30	3	No	No	Yes	No	No	no	No	No	No	No	No	No	Poor	mother	Good	Nil
307	Bhavana	14	IV	12	regular	4	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	sister	Good	Nil
308	Suganthi	15	IV	13	regular	3	30	2	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
309	Sanjana	16	IV	13	regular	4	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
310	Anuradha	14	IV	12	regular	3	30	2	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
311	Gomathy	15	IV	13	regular	3	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
312	Sumangala	15	IV	12	regular	3to4	30-35	3	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
313	Meena	14	IV	12	regular	3to5	28-30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
314	Mythili	14	IV	12	regular	4to5	30	2	No	No	No	No	No	No	Yes	No	No	No	No	No	Poor	mother	Good	Nil
315	Poorani	15	IV	13	regular	3	30-32	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
316	Hebsiba	14	III	12	regular	3	35	3	yes	No	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	Aunt	Good	Rhinitis
317	Sandhiya	16	IV	12	regular	3	30	3	yes	No	No	No	No	No	No	No	No	No	No	Yes	Poor	sisters	Good	Nil
318	Kanniga	15	III	13	regular	6	30-35	3	yes	No	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
319	Madhumitha	16	IV	14	regular	4	35	3	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
320	Sangavi	13	IV	11	regular	3to4	30-35	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Nil

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321	Tamilselvi	14	IV	12	regular	4to5	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
322	Sangeetha	15	IV	13	regular	4to5	30	2	yes	No	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
323	Jayanthi	15	V	13	regular	3	30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
324	Anbarasi	15	IV	10	Regular	3to4	30-32	3	Yes	No	no	no	no	no	no	no	no	no	no	no	poor	mother	good	nil
325	Sudha	14	III	12	Regular	4	30-35	3	Yes	No	No	No	no	no	no	no	no	no	Yes	Yes	poor	mother	good	Nil
326	Manjula	13	III	11	Regular	3	30-35	2	Yes	No	No	No	no	no	no	no	no	no	no	no	poor	mother	good	Nil
327	Thamari	14	IV	12	Regular	4	30	2	No	No	No	No	no	no	no	no	no	no	no	no	poor	aunt	good	Nil
328	Judy	13	IV	11	Regular	4to5	30-35	2	No	No	No	Yes	no	no	no	no	no	no	no	no	good	mother	good	Nil
329	Sathya	14	III	12	Regular	3	30	2	No	yes	yes	No	no	no	no	no	no	no	no	no	good	friends	good	Nil
330	Muthumathy	15	V	13	Regular	3	35	2	No	No	No	Yes	no	no	no	no	no	no	no	no	poor	mother	good	Nil
331	Shantha	15	IV	13	Regular	3to4	28-32	3	Yes	No	yes	Yes	no	no	no	no	no	no	Yes	Yes	good	mother	good	Nil
332	Aruna	14	IV	12	Regular	4to5	30	2	Yes	No	No	No	no	no	no	no	no	no	no	no	good	mother	good	Nil
333	Nazeema	15	IV	13	regular	3	30-33	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
334	Gokila	14	III	12	regular	4	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
335	Anandhi	14	IV	12	regular	3	30-35	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
336	Shobana	14	V	13	regular	3to4	35	2	yes	No	No	No	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
337	Rathika	15	III	12	regular	3to4	35	3	No	Yes	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Con.ptosis
338	Reenu	14	IV	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
339	Lalitha	14	III	12	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
340	Iavanya	14	IV	12	regular	5to6	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
341	Jeyaseeli	13	IV	11	regular	5	30	3	No	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
342	Srija	15	IV	13	regular	4	25-30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
343	Vinodha	14	III	12	regular	5	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
344	Lakshana	14	IV	11	regular	4	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
345	Soundarya	14	III	12	regular	4	35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
346	Haridha	15	IV	13	regular	3	32-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	Sister	Good	Nil
347	Kanchana	13	IV	11	regular	5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
348	Deepam	13	III	10	regular	5	28-30	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
349	Kalaivani	13	III	11	regular	6	35	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
350	Stella	14	IV	12	regular	3to4	30-32	4	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
351	Dharshini	15	III	13	regular	3	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
352	Rani	14	IV	12	regular	4to5	30	4	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	mother	Good	Nil
353	Sangeetha	14	III	11	regular	3to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
354	Prabha	14	IV	12	regular	5	32	3	yes	no	No	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Headache
355	Saroja	14	IV	12	regular	6	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
356	Radha	14	IV	12	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
357	Anupama+B392	13	IV	11	regular	3	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
358	Anju	14	IV	11	regular	5	30-33	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
359	Thanusri	14	III	12	regular	5	30	3	No	no	No	No	No	No	No	No	No	No	no	No	Poor	Aunt	Good	Nil
360	Malathy	14	III	12	regular	6	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
361	Sweetha	15	IV	13	regular	4	32	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
362	Parvathy	16	III	13	regular	4to5	35-40	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
363	Sarulatha	15	IV	13	regular	5	30-35	4	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
364	Hema	13	III	11	regular	4	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
365	Tamilarasi	15	IV	12	regular	3	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
366	Neela	14	IV	11	regular	4	35	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil

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367	Dhanusri	16	IV	12	regular	4	30	1	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	poor	Nil
368	Meenu	13	III	11	regular	5to6	35	3	yes	no	No	No	No	No	No	Yes	No	No	No	No	Poor	mother	Good	Nil
369	Bhavani	15	IV	13	regular	4	35-40	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
370	Ganga	14	IV	12	regular	3	35	2	yes	no	No	No	yes	No	No	No	No	No	No	No	Good	mother	Good	Nil
371	Sripriya	15	IV	13	regular	3	35-40	2	yes	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
372	Sharmila	15	IV	13	regular	3	30	2	yes	no	No	No	No	yes	Yes	No	No	yes	No	No	Good	Aunt	Good	Nil
373	Ramya	14	IV	12	regular	4to5	35	3	yes	Yes	No	No	yes	No	No	No	No	yes	No	No	Good	Friends	Good	Nil
374	Selvarani	15	IV	13	regular	4	30	4	No	No	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
375	Nithya	16	III	11	regular	3	35	4	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
376	Savetha	14	IV	12	regular	3to4	30-32	3	yes	Yes	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
377	Shanthi	16	IV	13	regular	4	30-35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
378	Akila	16	IV	14	regular	3	25-30	3	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
379	Rajalaxmi	15	IV	12	regular	5to6	32-35	2	No	no	No	No	No	No	No	No	No	No	No	Yes	Poor	mother	Good	Nil
380	Chitra	15	III	12	regular	3	30	3	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
381	R.Devi	15	IV	13	regular	4	30	4	No	no	No	No	No	No	No	No	No	No	No	No	Poor	Aunt	Good	Nil
382	Thuruna	15	IV	13	regular	2to3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
383	Vinodhini	16	III	14	regular	4	30-35	4	yes	no	No	No	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
384	Megala	15	IV	12	regular	4to5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	old TB
385	Manochitra	16	III	14	regular	3	30-32	2	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
386	Krithika	15	III	13	regular	4	35	1	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	poor	Nil
387	Narmadha	15	III	12	regular	3	35-40	1	yes	no	No	yes	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
388	Sureka	16	IV	12	regular	4to5	30	2	yes	no	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
389	Latha	15	IV	13	regular	3	30-32	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
390	Jayanthy	16	IV	14	regular	3to5	35	2	yes	no	Yes	No	No	No	No	No	No	No	No	Yes	Good	sister	Good	Nil
391	Sasireka	17	III	12	regular	6	35	2	No	no	No	No	No	No	No	No	No	No	no	no	Poor	mother	Good	Nil
392	Vanitha	16	IV	13	regular	3	30	3	yes	no	No	yes	No	No	No	No	No	No	Yes	Yes	Poor	mother	Good	Nil
393	Seema	18	IV	14	regular	4to5	28-30	2	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	Sister	Good	Nil
394	Sumitra	16	IV	13	regular	3	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
395	Sangeetha	15	IV	13	regular	3	32	1	yes	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
396	Elavarasi	16	IV	14	regular	4	35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	sisters	Good	Nil
397	Keerthi	17	IV	11	regular	4to5	35-40	2	yes	Yes	Yes	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
398	Banu	17	IV	14	regular	5	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
399	Sumathy	16	IV	13	regular	2to3	35	1	No	no	No	No	no	No	no	No	No	No	No	Yes	Good	mother	Good	Nil
400	Nandhini	18	IV	14	regular	4	30	2	yes	no	No	No	No	No	no	No	No	No	No	No	Poor	friends	Good	Nil
401	Sathya	17	IV	15	regular	4	30	4	yes	no	No	No	No	No	No	No	No	No	Yes	No	Poor	Aunt	Good	BA
402	Arthi	16	III	14	regular	4to5	35	2	yes	no	No	No	No	No	No	No	No	No	No	No	Good	friends	Good	Nil
403	Rajasri	16	IV	12	regular	5	30	3	yes	no	No	No	No	No	No	No	No	No	No	No	Good	sister	Good	Nil
404	Sharmila	16	III	14	regular	3	30	2	No	no	No	No	No	No	No	No	No	No	No	No	Poor	mother	Good	Nil
405	Vani	15	IV	13	regular	4	32-35	2	No	no	No	No	No	No	No	No	No	No	No	No	Good	mother	Good	Nil
406	Thasleem	16	III	14	regular	3to4	30	3	No	No	No	No	No	No	No	No	No	No	No	No	Good	Sisters	Good	Nil

History				Personal history													Investigations							
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis		
Nil	NK	NA	NA	0	normal	Good	No	No	No	No	No	No	Normal	19.3	N									
Nil	12	NA	NA	0	normal	Good	No	No	No	No	No	No	Normal	22.3	N				N study	1.4	5			
Nil	12	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.7	N									
Nil	12	12	11	1	normal	Average	No	No	Yes	No	No	No	Normal	28.1	N				ut-N/bilateral PCO	0.29	Prl-5.0ng/ml	PCOS		
irregular periods	13	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.4	N				ut-N/bilateral PCO	1.34	Prl-8.2ng/ml	PCOS		
Nil	NK	11	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	18.7	N	12gms	34.5	3 lakhs	N study	0.79				
Nil	NK	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	20.9	N				N study	0.32	Prl-5.2ng/ml			
Nil	13			0	normal	Good	No	No	No	No	No	No	Normal	18.3	N									
Nil	NK	13	12	1	normal	Average	No	No	No	No	No	No	Normal	23.5	N	12.5gms	36	2.5 lakhs	N study	0.47				
Nil	13	NA	NA	1	normal	Average	No	No	Yes	No	goitre	No	Normal	20	N									
Nil	14	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	18.3	N				N study	1.4	Prl-6.0ng/ml			
for seizure	13	NA	NA	0	normal	Average	No	No	Yes	No	?goitre	No	Normal	20.3	N									
Nil	NK	14	13	0	normal	Average	No	No	No	No	No	No	Normal	22	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	goitre	No	Normal	20.4	N									
Nil	NK	14	13	1	normal	Average	No	No	No	No	No	No	Normal	19.1	N				N study	1.46	Prl-7ng/ml			
Nil	NA	14	NA	0	normal	Average	No	No	No	No	No	No	Normal	25.2	N				N study	5.27	Prl-4.06ng/ml	Hypothyroidism		
Nil	12	13	15	1	normal	Average	No	No	Yes	No	goitre	No	Normal	16.4	N									
TB	NK	NA	NA	1	normal	Good	No	No	Yes	No	goitre	No	Normal	18.2	N					0.63				
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.6	N				N study	1.24	Prl-5.08ng/ml			
Nil	14	12	NA	0	normal	Good	No	No	No	No	No	No	Normal	20	N				N study	0.55	Prl-7.8ng/ml			
irregular periods	NK	NK	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	21.3	N				ut-N/bilateral PCO	2.05	Prl-6.5ng/ml	PCOS		
Nil	13	NA	NA	2	normal	Good	No	No	No	No	No	No	Normal	20.8	N									
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	16.6	N									
irregular periods	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	24	N									
Nil	13	11	NA	0	normal	Good	No	No	No	No	No	No	Normal	19.5	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.6	N									
Nil	13	13	NA	0	normal	Average	No	No	No	No	No	No	Normal	20.5	N									
Nil	12	NA	NA	0	normal	Average	No	No	No	No	goitre	No	Normal	23	N									
Nil	12	NA	NA	0	normal	Good	No	No	No	No	goitre	No	Normal	19.3	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.3	N									
Nil	13	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	17	N									
Nil	NK	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19.8	N									
Nil	14	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.8	N									
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.7	N									
Nil	NK	13	NA	2	normal	Average	No	No	No	No	No	No	Normal	21.4	N									
Nil	14	13	13	2	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	13	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.6	N									
Nil	13	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	1	normal	Good	No	No	Yes	No	No	No	Normal	23.5	N									
Nil	13	13	NA	2	normal	Average	No	No	No	No	No	No	Normal	17.3	N									
Nil	NK	NA	NA	2	normal	Average	No	No	Yes	No	No	No	Normal	25.7	N				N study	1.42	Prl-10.8ng/ml			
Nil	13	14	13	0	normal	Average	No	No	No	No	No	No	Normal	22.8	N									
Nil		13	NA	0	constipation	Average	No	No	Yes	No	No	No	Normal	18.2	N									
Nil	NK	NA	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	26.3	N									

History				Personal history														Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis		
Nil	15	14	13	1	normal	Average	No	No	No	No	No	No	Normal	23	N									
Nil	17	13	NA	0	normal	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22	N									
Nil	NK	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.8	N									
Nil	14	13	NA	0	normal	Good	No	No	No	No	No	No	Normal	17.6	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	14	NA	0	normal	Good	No	No	Yes	No	No	No	Normal	16.2	N									
Nil	NK	NA	NA	0	normal	Average	No	No	Yes	No	No	No	Normal	26.7	N									
Nil	NK	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	17.1	N									
Nil	NK	13	14	2	normal	Average	No	No	No	No	No	No	Normal	16.6	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.7	N									
Nil	NK	14	NA	0	normal	Average	No	No	No	No	No	No	Normal	21.3	N									
MVPS	Nk	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	NA	NA	2	normal	Good	No	No	Yes	No	No	No	Normal	21	N									
TB	14	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	16	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.2	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	15.3	N									
Nil	NK	12	13	0	normal	Good	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.6	N									
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	21	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.7	N									
Nil	NK	NA	NA	0	normal	Average	No	No	Yes	No	No	No	Normal	22	N									
Nil	13	13	13	2	normal	Average	No	No	No	No	No	No	Normal	21.6	N									
Nil	NK	12	NA	1	normal	Good	No	No	No	No	No	No	Normal	21	N									
Nil	14	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.4	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.4	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N									
Nil	13	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	11	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	19.7	N									
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.3	N									
Nil	14	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19	N									
Nil	NK	13	12	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	13	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	19	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	21	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.6	N									
Nil	11	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.4	N									
Nil	15	NA	NA	1	normal	Good	No	No	Yes	No	No	No	Normal	20.8	N									
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.5	N									
Nil	13	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	21.5	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.2	N									
Nil	NK	13	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	20	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22	N									
Nil	13	12	NA	1	normal	Good	No	No	No	No	No	No	Normal	21.2	N									
Nil	13	NA	NA	2	normal	Good	No	No	No	No	No	No	Normal	20	N									

History				Personal history													Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis	
Nil	14	11	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	20.3	N							
Nil	NK	13	14	2	normal	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	No	Normal	19.5	N							
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	21.3	N							
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	19.5	N							
Nil	14	15	13	0	normal	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	15	NA	NA	2	normal	Average	No	No	No	No	No	No	No	Normal	18	N							
Nil	14	13	NA	0	normal	Good	No	No	No	No	No	No	No	Normal	22.7	N							
Nil	15	NA	NA	1	normal	Average	No	No	Yes	No	No	No	No	Normal	18.7	N							
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	17.5	N							
Nil	12	12	NA	1	normal	Average	No	No	Yes	No	No	No	No	Normal	20.7	N							
Nil	NK	NA	NA	2	constipation	Average	No	No	No	No	No	No	No	Normal	21	N							
Nil	15	13	NA	1	normal	Good	No	No	No	No	No	No	No	Normal	22.2	N							
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	17.7	N							
Nil	NK	14	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	19.6	N							
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	19.6	N							
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	No	Normal	18.7	N							
Nil	16	NA	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	13	13	NA	1	normal	Average	No	No	Yes	No	No	No	No	Normal	20	N							
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	12	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	11	14	NA	1	normal	Average	No	No	No	No	No	No	No	Normal	20.3	N							
Nil	12	13	13	0	normal	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	NA	NA	0	normal	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	NK	12	NA	1	normal	Average	No	No	Yes	No	No	No	No	Normal	21	N							
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	No	Normal	20.4	N							
Nil	NK	13	14	1	normal	Average	No	No	No	No	No	No	No	Normal	22.3	N							
Nil	14	NA	NA	0	N	Good	No	No	No	No	No	No	No	Normal	19.2	N							
nil	NK	12	NA	1	N	Good	No	NO	No	No	No	No	No	Normal	24.7	N							
Nil	12	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	19.7	N							
Nil	NK	NA	NA	1	N	good	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	18.5	N							
Nil	NK	12	11	1	N	Average	No	No	No	No	No	No	No	Normal	21.7	N							
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	No	Normal	21.7	N							
Nil	16	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	13	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	17.3	N							
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	14	13	NA	1	N	Good	No	No	No	No	No	No	No	Normal	18.2	N							
Nil	NK	NA	NA	2	N	Good	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	No	Normal	18.9	N							
epilepsy	14	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.7	N							
Nil	14	13	NA	1	N	Poor	No	No	No	No	No	No	No	Normal	18.6	N							
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	No	Normal	18.1	N							
Nil	14	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	20.3	N							
Nil	NK	12	NA	1	N	Average	No	No	No	No	No	No	No	Normal	18	N							

History				Personal history													Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis	
Nil	NK	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.2	N							
Nil	15	NA	NA	0	N	Average	No	No	Yes	No	No	No	No	Normal	19.6	N							
Nil	NK	10	NA	0	N	Good	No	No	No	No	No	No	No	Normal	20	N							
Nil	NK	NA	NA	0	N	Good	No	No	No	No	No	No	No	Normal	18.5	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	26.2	N							
Nil	NK	15	NA	0	N	Average	No	No	No	No	No	No	No	Normal	18.3	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	27.4	N							
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	23	N							
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	No	Normal	20.3	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	13	NA	NA	1	N	Good	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	18.5	N							
Nil	12	NA	NA	1	N	Good	No	No	No	No	No	No	No	Normal	26	N							
Nil	13	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.5	N							
Nil	14	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	18.8	N							
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	19.2	N							
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	22	N							
Nil	12	10	NA	1	N	Good	No	No	No	No	No	No	No	Normal	22	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	18	N							
Nil	NK	11	NA	0	N	Average	No	No	No	No	No	No	No	Normal	18.5	N							
Nil	14	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	25	N							
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	14	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	21	N							
Nil	13	NA	NA	2	N	Average	No	No	No	No	No	No	No	Normal	16.6	N							
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.7	N							
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	No	Normal	18	N							
Nil	NK	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	20.3	N							
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	18.7	N							
Nil	14	NA	NA	2	N	Good	No	No	No	No	No	No	No	Normal	20.5	N							
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	19.8	N							
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	16.8	N							
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	No	Normal	22	N							
Nil	13	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.4	N							
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	No	Normal	18	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17.5	N							
Nil	15	13	NA	1	N	Good	No	No	Yes	No	No	No	No	Normal	21	N							
Nil	14	13	NA	1	N	Average	No	No	No	No	No	No	No	Normal	22.8	N							
Nil	NK	NA	NA	0	N	Good	No	No	No	No	No	No	No	Normal	17.7	N							
Nil	12	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	18.3	N							
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	No	Normal	20	N							
Nil	15	14	13	2	N	Average	No	No	No	No	No	No	No	Normal	19	N							
Nil	NK	NA	NA	1	N	Average	No	No	Yes	No	No	No	No	Normal	18.5	N							
TB	NK	13	NA	0	N	Average	No	No	No	No	No	No	No	Normal	19.2	N							
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	No	Normal	18.7	N							
Nil	NK	15	NA	1	N	Average	No	No	No	No	No	No	No	Normal	17	N							

History				Personal history													Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis	
Nil	NK	13	NA	0	N	Average	No	No	No	No	No	No	Normal	21.5	N								
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	18	N								
Nil	NK	NA	NA	0	N	Average	No	No	Yes	No	No	No	Normal	20.2	N								
Nil	15	15	NA	1	N	Average	No	No	No	No	No	No	Normal	20.5	N								
Nil	12	NA	NA	0	N	Average	No	No	Yes	No	No	No	Normal	24.2	N								
Nil	13	12	NA	0	N	Average	No	No	Yes	No	No	No	Normal	20.8	N								
Nil	NK	13	NA	1	N	Good	No	No	No	No	No	No	Normal	18	N								
Nil	NK	14	NA	0	N	Average	No	No	No	No	No	No	Normal	19.4	N								
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	20.8	N								
Nil	NK	14	13	1	N	Average	No	No	No	No	No	No	Normal	18	N								
Nil	14	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	24.7	N								
Nil	15	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	18.6	N								
Nil	NK	14	14	0	N	Good	No	No	No	No	No	No	Normal	17.7	N								
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.3	N								
Nil	NK	15	NA	2	N	Average	No	No	No	No	No	No	Normal	18.6	N								
Nil	NK	15	14	1	N	Average	No	No	No	No	No	No	Normal	18	N								
Nil	14	12	NA	2	N	Average	No	No	No	No	No	No	Normal	23	N								
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	20	N								
Nil	13	13	NA	1	N	Average	No	No	No	No	No	No	Normal	24.2	N								
Nil	NK	14	13	0	N	Average	No	No	No	No	No	No	Normal	19	N								
Nil	NK	NA	NA	0	normal	Good	No	No	No	No	No	No	Normal	19.3	N				N study	3.1	Prl-8.06ng/ml		
Nil	12	NA	NA	0	normal	Good	No	No	No	No	No	No	Normal	22.3	N				N study	2.06	Prl-4.7ng/ml		
Nil	12	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.7	N								
Nil	12	12	11	1	normal	Average	No	No	No	No	No	No	Normal	27.3	N				N study	0.6	Prl-7.02ng/ml		
Nil	13	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.4	N								
Nil	NK	11	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	17	N				N study				
Nil	NK	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	21	N				N study	1.7	Prl-4.9ng/ml		
Nil	13	NA	NA	0	normal	Good	No	No	No	No	No	No	Normal	18.7	N								
Nil	NK	13	12	1	normal	Average	No	No	No	No	No	No	Normal	23.5	N								
Nil	13	NA	NA	1	normal	Average	No	No	Yes	No	goitre	No	Normal	20	N								
irregular periods	14	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	20.3	N				N study	2.1	Prl-8.05ng/ml		
for seizure	13	NA	NA	0	normal	Average	No	No	Yes	No	?goitre	No	Normal	20.3	N								
Nil	NK	14	13	0	normal	Average	No	No	No	No	No	No	Normal	22	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	goitre	No	Normal	19.5	N								
Nil	NK	14	13	1	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	NA	14	NA	0	normal	Average	No	No	No	No	No	No	Normal	25	N								
Nil	12	13	15	1	normal	Average	No	No	Yes	No	goitre	No	Normal	16.9	N								
TB	NK	NA	NA	1	normal	Good	No	No	Yes	No	goitre	No	Normal	19	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N								
Nil	14	12	NA	0	normal	Good	No	No	No	No	No	No	Normal	20	N								
irregular periods	NK	NK	NA	1	normal	Good	No	No	No	No	No	No	Normal	19	N				N study	0.43	Prl-9.0ng/ml		
Nil	13	NA	NA	2	normal	Good	No	No	No	No	No	No	Normal	20.8	N								
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19	N				N study	0.96	Prl-6.8ng/ml		
irregular periods	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	24	N								
Nil	13	11	NA	0	normal	Good	No	No	No	No	No	No	Normal	19.5	N								

History				Personal history														Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis		
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.7	N				N study	1.6	Prl-5.1ng/ml			
Nil	13	13	NA	0	normal	Average	No	No	No	No	No	No	Normal	20.5	N									
Nil	12	NA	NA	0	normal	Average	No	No	No	No	goitre	No	Normal	23	N									
Nil	12	NA	NA	0	normal	Good	No	No	No	No	goitre	No	Normal	19.3	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N									
Nil	13	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19.8	N									
Nil	14	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.8	N									
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.7	N									
Nil	NK	13	NA	2	normal	Average	No	No	No	No	No	No	Normal	21.4	N									
Nil	14	13	13	2	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	13	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.6	N									
Nil	13	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	1	normal	Good	No	No	Yes	No	No	No	Normal	23.5	N									
Nil	13	13	NA	2	normal	Average	No	No	No	No	No	No	Normal	17.3	N									
Nil	NK	NA	NA	2	normal	Average	No	No	Yes	No	No	No	Normal	25.7	N									
Nil	13	14	13	0	normal	Average	No	No	No	No	No	No	Normal	20.8	N									
Nil		13	NA	0	constipation	Average	No	No	Yes	No	No	No	Normal	18.7	N									
Nil	NK	NA	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	26.7	N									
Nil	15	14	13	1	normal	Average	No	No	No	No	No	No	Normal	23	N									
Nil	17	13	NA	0	normal	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22	N									
Nil	NK	15	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.8	N									
Nil	14	13	NA	0	normal	Good	No	No	No	No	No	No	Normal	17.6	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	14	NA	0	normal	Good	No	No	Yes	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	0	normal	Average	No	No	Yes	No	No	No	Normal	25.7	N									
Nil	NK	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	18	N									
Nil	NK	13	14	2	normal	Average	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.4	N									
Nil	NK	14	NA	0	normal	Average	No	No	No	No	No	No	Normal	21.3	N									
MVPS	Nk	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	NA	NA	2	normal	Good	No	No	Yes	No	No	No	Normal	21	N									
TB	14	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.3	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.4	N									
Nil	NK	12	13	0	normal	Good	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N									
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	21	N									
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.7	N									
Nil	NK	NA	NA	0	normal	Average	No	No	Yes	No	No	No	Normal	22	N									
Nil	13	13	13	2	normal	Average	No	No	No	No	No	No	Normal	21.6	N									
Nil	NK	12	NA	1	normal	Good	No	No	No	No	No	No	Normal	21	N									
Nil	14	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.4	N									

History				Personal history													Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis	
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.4	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	13	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N								
Nil	11	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	19.6	N								
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.7	N								
Nil	14	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	NK	13	12	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N								
Nil	13	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	19	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.8	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	11	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.4	N								
Nil	15	NA	NA	1	normal	Good	No	No	Yes	No	No	No	Normal	20	N								
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	18.5	N								
Nil	13	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	21.5	N								
Nil	NK	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N								
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	NK	13	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	20.2	N								
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	22.4	N								
Nil	13	12	NA	1	normal	Good	No	No	No	No	No	No	Normal	21	N								
Nil	13	NA	NA	2	normal	Good	No	No	No	No	No	No	Normal	20.2	N								
Nil	14	11	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.3	N								
Nil	NK	13	14	2	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	19.5	N								
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	21.3	N								
Nil	13	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.5	N								
Nil	14	15	13	0	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	15	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	18.6	N								
Nil	14	13	NA	0	normal	Good	No	No	No	No	No	No	Normal	22.7	N								
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Nil	12	12	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	20.7	N								
Nil	NK	NA	NA	2	constipation	Average	No	No	No	No	No	No	Normal	20.8	N								
Nil	15	13	NA	1	normal	Good	No	No	No	No	No	No	Normal	22	N								
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	17.7	N								
Nil	NK	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	NK	13	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.6	N								
Nil	14	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	19.6	N								
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	18.7	N								
Nil	16	NA	NA	1	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	13	13	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	20	N								
Nil	13	NA	NA	2	normal	Average	No	No	No	No	No	No	Normal	18.7	N								
Nil	NK	12	NA	1	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	11	14	NA	1	normal	Average	No	No	No	No	No	No	Normal	20.3	N								
Nil	12	13	13	0	normal	Average	No	No	No	No	No	No	Normal	19	N								
Nil	NK	NA	NA	0	normal	Average	No	No	No	No	No	No	Normal	20	N								
Nil	NK	12	NA	1	normal	Average	No	No	Yes	No	No	No	Normal	21	N								

History				Personal history														Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis		
Nil	NK	NA	NA	1	normal	Good	No	No	No	No	No	No	Normal	20.4	N									
Nil	NK	13	14	1	normal	Average	No	No	No	No	No	No	Normal	22.3	N									
Nil	14	NA	NA	0	N	Good	No	No	No	No	No	No	Normal	20.3	N									
nil	NK	12	NA	1	N	Good	No	NO	No	No	No	No	Normal	24.7	N									
Nil	12	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	20	N									
Nil	NK	NA	NA	1	N	good	No	No	No	No	No	No	Normal	19	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	12	11	1	N	Average	No	No	No	No	No	No	Normal	21.4	N									
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	21.7	N									
Nil	16	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	19.3	N									
Nil	13	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	18.3	N									
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	20	N									
Nil	14	13	NA	1	N	Good	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	2	N	Good	No	No	No	No	No	No	Normal	19	N									
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	17.7	N									
Nil	14	13	NA	1	N	Poor	No	No	No	No	No	No	Normal	18.2	N									
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	19	N									
Nil	14	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	20.3	N									
Nil	NK	12	NA	1	N	Average	No	No	No	No	No	No	Normal	18	N									
Nil	NK	13	NA	1	N	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	15	NA	NA	0	N	Average	No	No	Yes	No	No	No	Normal	19.7	N									
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Nil	NK	NA	NA	0	N	Good	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	25.7	N									
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Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	27	N									
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	22.8	N									
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	20.3	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	13	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	19.3	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	12	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	26	N									
Nil	13	13	NA	1	N	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	14	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	19.8	N									
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	15	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	21.4	N									
Nil	12	10	NA	1	N	Good	No	No	No	No	No	No	Normal	22	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	NK	11	NA	0	N	Average	No	No	No	No	No	No	Normal	18.5	N									
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Nil	14	13	NA	1	N	Average	No	No	No	No	No	No	Normal	21	N									
Nil	13	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	17.7	N									
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	18.7	N									

History				Personal history														Investigations						
	Mother's AM	Sibling1 AM	Sibling2 AM	BE	BH	School performance	Pallor	Edema	ACNE	Hirsutism	TH	BD	SSC	BMI	SE	Hb	PCV	Platelets	USG abdomen and pelvis	TSH mIU/ml	Other Investigations	Diagnosis		
Nil	NK	13	NA	1	N	Average	No	No	No	No	No	No	Normal	20.3	N									
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	14	NA	NA	2	N	Good	No	No	No	No	No	No	Normal	20	N									
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	19.8	N									
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	20	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.5	N									
Nil	NK	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	22	N									
Nil	13	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.7	N									
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	18	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.5	N									
Nil	15	13	NA	1	N	Good	No	No	Yes	No	No	No	Normal	21	N									
Nil	14	13	NA	1	N	Average	No	No	No	No	No	No	Normal	22.8	N									
Nil	NK	NA	NA	0	N	Good	No	No	No	No	No	No	Normal	18.2	N									
Nil	12	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	18.2	N									
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Nil	15	14	13	2	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	NK	NA	NA	1	N	Average	No	No	Yes	No	No	No	Normal	19.5	N									
Nil	NK	13	NA	0	N	Average	No	No	No	No	No	No	Normal	19.2	N									
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	19	N									
Nil	NK	15	NA	1	N	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	NK	13	NA	0	N	Average	No	No	No	No	No	No	Normal	21.5	N									
Nil	NK	NA	NA	0	N	Average	No	No	No	No	No	No	Normal	19.5	N									
Nil	NK	NA	NA	0	N	Average	No	No	Yes	No	No	No	Normal	20.2	N									
Nil	15	15	NA	1	N	Average	No	No	No	No	No	No	Normal	20.5	N									
Nil	12	NA	NA	0	N	Average	No	No	Yes	No	No	No	Normal	24	N									
Nil	13	12	NA	0	N	Average	No	No	Yes	No	No	No	Normal	20.8	N									
Nil	NK	13	NA	1	N	Good	No	No	No	No	No	No	Normal	19.2	N									
Nil	NK	14	NA	0	N	Average	No	No	No	No	No	No	Normal	19.4	N									
Nil	NK	NA	NA	1	N	Good	No	No	No	No	No	No	Normal	22.3	N									
Nil	NK	14	13	1	N	Average	No	No	No	No	No	No	Normal	18	N									
Nil	14	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	24.7	N									
Nil	15	NA	NA	2	N	Average	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	14	14	0	N	Good	No	No	No	No	No	No	Normal	18.6	N									
Nil	NK	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	19.2	N									
Nil	NK	15	NA	2	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	NK	15	14	1	N	Average	No	No	No	No	No	No	Normal	19	N									
Nil	14	12	NA	2	N	Average	No	No	No	No	No	No	Normal	23.4	N									
Nil	14	NA	NA	1	N	Average	No	No	No	No	No	No	Normal	21	N									
Nil	13	13	NA	1	N	Average	No	No	No	No	No	No	Normal	24.2	N									
Nil	NK	14	13	0	N	Average	No	No	No	No	No	No	Normal	19.2	N									